

FINAL ENVIRONMENTAL ASSESSMENT

Lahontan Herd Management Area Gather Plan

DOI-BLM-NV-C020-2010-0018-EA

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It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

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LIST OF ACRONYMS

AML	Appropriate Management Levels
AUM	Animal Unit Months
AVMA	American Veterinary Medical Association
BLM	Bureau of Land Management
CCDO	Carson City District Office
CRMP	Carson City Field Office Consolidated Resource Management Plan
CFR	Code of Federal Regulations
DR	Decision Record
EA	Environmental Assessment
EIS	Environmental Impact Statement
FLPMA	Federal Land Policy and Management Act
FONSI	Finding of No Significant Impact
HMA	Herd Management Area
HMAP	Herd Management Area Plan
IM	Instruction Memorandum
KFPM	Range Utilization Key Forage Plant Method
LGA	Lahontan Grazing Allotment
LSRA	Lahontan State Recreation Area
LTP	Long Term Pastures
MUD	Multiple Use Decision
NEPA	National Environmental Policy Act
SFFO	Sierra Front Field Office
SOP	Standard Operating Procedures
TNEC	Thriving Natural Ecological Balance
WFRHBA	Wild Free-Roaming Horses and Burros Act

1.0 Introduction

This Environmental Assessment (EA) has been prepared to analyze the Bureau of Land Management (BLM) Sierra Front Field Office (SFFO) proposal to gather and remove approximately 94 excess wild horses from within and outside the boundaries of the Lahontan Herd Management Area (HMA) on or about mid-November to December 2010. The gather is anticipated to take two days to complete. Excess wild horses are utilizing rangelands within the HMA and have moved to areas outside the HMA boundaries.

This EA is a site-specific analysis of the potential impacts that could result from the implementation of the Proposed Action or No Action Alternative. This EA assisted the SFFO in project planning and ensuring compliance with the National Environmental Policy Act (NEPA) and in making a determination as to whether any “significant” impacts could result from the Proposed Action.

A determination has been made that implementation of the Proposed Action would not result in “significant environmental impacts,” therefore a Finding of No Significant Impact (FONSI) has been prepared separately to document that determination, and a Decision Record (DR) has been issued providing the rationale for approving the selected alternative.

1.1 Background

With passage of the *Wild Free-Roaming Horses and Burros Act of 1971* (WFRHBA) (Public Law 92-195), Congress found that: “Wild free-roaming wild horses and burros are living symbols of the historic and pioneer spirit of the West.” The Act states that wild free-roaming wild horses are to be considered in the area where presently found, as an integral part of the natural ecosystem of the public lands. The Secretary is directed to “manage wild free-roaming wild horses and burros in a manner that is designed to achieve and maintain a thriving natural ecological balance on the public lands.” The terms “horse” and “wild horse” (*Equus caballus*) are used synonymously throughout this document. At the time of enactment of the WFRHBA, the number of wild horses on BLM managed lands in the HMA was estimated to be four horses. Wild horses in the area likely originated from released ranch stock.

The BLM National Wild Horses and Burros Strategy includes: establishing and achieving Appropriate Management Levels (AML) on all Herd Management Areas managed by the BLM, and to achieve and maintain AML on all HMA’s implementing a four year gather cycle.

1.2 Location

The HMA is situated within the administrative jurisdiction of Carson City District Office (CCDO). The Lahontan HMA is located near Silver Springs, Lyon County, Nevada. The HMA is located south of the Lahontan State Recreation Area, and is mostly within the Lahontan Grazing Allotment (LGA) (Figure 1). The HMA consists of 11,029 acres of federally managed lands and 583 acres of private lands. Of the federally managed lands, most are BLM administered, although a portion of the HMA overlaps Bureau of Reclamation lands (Table 1).

Table 1. Herd Management Area Description.

Herd	Total Acres	Appropriate Management Level	Estimated Population	Removal
HMA	11,029	7-10	104	94

A Herd Management Area Plan/Capture Plan (HMAP) was originally prepared for this HMA in 1991 and was updated in 2003 (BLM, 2003). No change in the AML was made as a result of the plan update. These plans provided the direction for managing the HMA between 1991 and 2010.

1.3 Appropriate Management Level

The AML is defined as “the number of wild horses that can be sustained within a designated HMA which achieves and maintains a thriving natural ecological balance in keeping with the multiple-use management concept for the area.” At the time of enactment of the WFRHBA in 1971, it was estimated that four wild horses occupied the HMA. The AML range for the HMA, established in 1993 by the Multiple Use Decision (MUD), is set at 7-10 wild horses. The population range is based on in-depth analysis of monitoring data and of habitat suitability for maintaining healthy wild horses and rangelands over the long-term.

The MUD allocated the available forage between wildlife, wild horses and livestock. The AML for the HMA was set at 7-10 wild horses or 120 Animal Unit Months (AUM's), and livestock was allocated 122 AUM's. The available AUMs were essentially divided equally between livestock and wild horses. Data from prior gathers in the HMA is listed below in Table 2.

Table 2. Population and Removal Data.

Census Date	Number of Wild Horses Counted Inside and Outside the HMA	No. Removed
1971	4	-
1982	42	-
1986	130	-
1987	143	-
1988	172	-
1989	185	-
1991	233	-
1991	-	146
1991	87	-
1993	112	-
1994	-	69
1994	43	-
1995	71	-
1996	-	29
2003	261	-
2004	-	269
2004	25	-
2010	104	-

BLM completed a direct aerial population inventory of the HMA in May 2010. A total of 104 wild horses were counted outside of the boundaries of the HMA. Wild horses were observed in the LGA, immediately east/northeast of the HMA, and Lahontan State Recreation Area, north of the HMA. No wild horses were observed during the inventory within the HMA. Utilization and wild horse sign clearly indicate that heavy use is occurring throughout the HMA, which has led to the horses leaving the HMA boundaries to find forage, thereby utilizing areas not identified for wild horse management. The wild horse population is more than 10 times above the upper limit set for the AML. Insufficient forage availability has prevented livestock from being placed on the LGA since March 2007.

Rangeland resources and wild horse health have been and are currently being adversely affected within the boundaries of the HMA by the current overpopulation of wild horses. Utilization data using the Range Utilization Key Forage Plant Method (KFPM) and monitoring indicates heavy (61-80 percent) use attributable to wild horses over most of the HMA (Figure 2).

Based upon information available at this time, the BLM has determined that 94 excess wild horses exist within and outside of the boundaries of the HMA. These excess animals need to be removed in order to achieve the established AMLs, and to restore a thriving natural ecological balance and prevent further degradation of rangeland resources. This assessment is based on factors including, but not limited to the following rationale:

- Direct count of 104 wild horses, 94 wild horses in excess of the AML upper limit.
- Heavy utilization is evident on key forage species.
- Excess horse numbers have resulted in wild horses residing outside HMA boundaries.

1.4 Purpose and Need

The purpose of the Proposed Action is to remove excess wild horses from within the HMA and to remove all wild horses outside the HMA. The Proposed Action is needed to achieve: the established AML approved by the MUD; to achieve full compliance with the Carson City Field Office Consolidated Resource Management Plan (CRMP) (2001); to prevent continued unnecessary degradation of public lands both within and outside of the boundaries of the HMA; to restore a thriving natural ecological balance (TNEB); and to reestablish a multiple use doctrine consistent with the provisions of Section 1333(a) of the WFRHBA.

1.5 Conformance with BLM Land Use Plan(s)

The Proposed Action is to remove excess wild horses from within the HMA and to remove all wild horses residing outside the HMA, and is in conformance with the CRMP.

The following decisions from the CRMP affect the HMA:

1. **WHB-2:** decision 2 - "Maintain sound thriving populations of wild horses within HMAs."
2. **WHB-2:** decision 1 - "Develop and implement an HMAP for the HMA."
3. **WLD-2:** decision 4 - "Maintain and improve wildlife habitat, and reduce habitat conflicts while providing for other appropriate resource uses."

4. **WLD-2**, decision 6 - “Maintain or improve the condition of the public rangelands so as to enhance productivity for all rangeland values (including wildlife).”

1.6 Conformance with Rangeland Health Standards and Guidelines

The HMA has not been assessed for conformance with Rangeland Health Standards. However the heavy utilization of vegetative resources by wild horses that has been documented within the HMA indicates that some of the standards are not being met due to the current wild horse population. A comprehensive rangeland health assessment is tentatively planned for no later than 2016. For a summary of the applicable Rangeland Health Standards refer to:

http://www.blm.gov/nv/st/en/res/resource_advisory/sierra_front-northwestern/standards_and_guideline.html

1.7 Relationship to Statutes, Regulations, or other Plans

The Proposed Action is in compliance with the following federal, State, and local plans to the maximum extent possible:

- Wild Free-Roaming Horses and Burros Act of 1971 (as amended)
- Wild Horses and Burros Management Handbook (H-4700-1)
- State Protocol Agreement between the BLM, Nevada and the Nevada Historic Preservation Office (2009)
- Endangered Species Act – 1973
- National Environmental Policy Act of 1969 (as amended)
- Migratory Bird Treaty Act (1918 as amended) and Executive Order 13186
- Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.)
- Taylor Grazing Act of 1934 (as amended)
- Federal Land Policy and Management Act (FLPMA) of 1976 (43 U.S.C. 1701 et seq.)
- Public Rangelands Improvement Act of 1978
- Title 43 CFR 4100 Grazing Administration-Exclusive of Alaska
- American Indian Religious Freedom Act of 1979
- Archaeological Resource Protection Act of 1979
- National Historic Preservation Act of 1966, as amended
- Appropriations Act, 2001 (114 Stat. 1009) (66 Fed. Reg. 753)
- United States Department of the Interior Manual (910 DM 1.3)
- Fundamentals of Rangeland Health (43 CFR 4180)

The Proposed Action is consistent with all applicable regulations at 43 CFR (Code of Federal Regulations) 4700 and policies. The Proposed Action is also consistent with the WFRHBA, which mandates the Bureau to “*prevent the range from deterioration associated with overpopulation,*” and “*remove excess wild horses in order to preserve and maintain a thriving natural ecological balance and multiple use relationships in that area.*” Additionally, Federal regulations at Title 43 CFR 4700.0-6 (a) state that, “*Wild horses shall be managed as self-sustaining populations of healthy animals in balance with other uses and the productive capacity of their habitat.*”

1.8 Decision to be Made

The BLM Authorizing Official is considering whether to implement the proposed gather of approximately 94 excess wild horses within and outside the boundaries of the HMA to maintain the population size within the established AML and avoid the further deterioration of the range that results from horse overpopulation (See attached Decision Record). The Authorized Officer's decision would not set or adjust the AML, adjust livestock use on the LGA, or change the MUD, as these were set through prior decision-making processes, and monitoring data does not currently indicate that adjustments are required.

2.0 Description of Alternatives

2.1 Alternative A: Proposed Action

The Proposed Action is to conduct a gather and remove approximately 94 excess wild horses that exist within and outside the boundaries of the HMA. A direct aerial population inventory of the HMA was conducted in May 2010. The count was 104 wild horses outside of the boundaries of the HMA. Wild horses were observed in the LGA north/northeast of the HMA, and in LSRA north of the HMA. No wild horses were observed within the HMA during the aerial inventory. Utilization and wild horse sign clearly indicate that heavy use is occurring throughout the HMA, likely leading to the movement of horses to areas outside of the HMA boundaries in search of forage. Wild horse can move freely into and out of the HMA as there is no continuous fencing that would prevent such movement. In order to access water, wild horse movement outside the HMA boundaries into the LSRA is expected, as there are no available water sources for the horses within the HMA. However, due to the current overpopulation of wild horses, which is approximately 10 times above the upper limit of AML, wild horses are not just accessing water outside the HMA boundaries, but remaining outside the HMA boundaries since forage within the HMA is insufficient to sustain their current numbers. The Proposed Action is designed to achieve and maintain a thriving natural ecological balance and multiple use relationship between the wild horse population, wildlife, livestock and plant communities within the HMA. Conducting a gather at this time is necessary to resolve the issues of over-utilization of vegetative resources within the HMA.

The primary gather technique would be the helicopter-drive trapping method. The use of roping from horseback could also be used when necessary. One or two gather sites (traps) would be used to gather wild horses both from within or outside the boundaries of the HMA. If more than 94 horses were gathered, a sufficient number of wild horses would be released back into the HMA to ensure a population at the upper limit of AML.¹ All efforts would be made to locate trap sites in previously disturbed areas on public lands to minimize additional surface disturbance. All trap sites, holding facilities, and camping areas on public lands used for gather operations would be recorded with Global Positioning System equipment and monitored during the next several years for noxious weeds. All gather and handling activities (including trap site selections) would be conducted in accordance with Standard Operating Procedures (SOPs) in Appendix A. Due in part to the size and complexity of the HMA, the use of helicopters is the most efficient and humane method for conducting the gather operation.

Other data, including sex and age distribution, reproduction, condition class information (using the Henneke rating system), color, size and other information would also be recorded for all gathered horses.

Gathered wild horses would be transported to BLM holding facilities where they would be prepared for adoption and/or sale to qualified individuals who can provide them with a good

¹ Although BLM generally attempts to gather to low limit of AML, because of the upper and lower limit are separated by only a few horses, BLM would gather to the upper limit of AML.

home or would be sent to long-term holding (grassland pastures).

2.2 Alternative B: No Action Alternative

Under the No Action Alternative, a gather to remove excess wild horses would be deferred and would not take place in November or December 2010. In two years, the wild horse population could exceed 162 head, which is approximately 16 times above the upper range of AML. Damage to the range within the HMA would continue to increase, as wild horse populations can grow at an average rate of 20 to 25 percent per year. Under the No Action Alternative, BLM would continue to monitor range health and wild horse populations, but would not remove excess horses.

The No Action Alternative would not be in conformance with existing laws and regulations, which require the Authorized Officer to remove the animals immediately upon determination that excess wild horses are present. However, the No Action Alternative is required by NEPA to provide a baseline for impact analysis.

The No Action Alternative is not in conformance with the CRMP or with BLM's mandate to manage for healthy rangelands. The horse population has already exceeded the capacity of the HMA to provide forage. As the population increases there is increased pressure on, and impacts to, the rangeland outside the HMA boundaries in the LSRA and LGA.

2.3 Alternatives Considered, But Eliminated From Detailed Analysis

Water Trapping

An alternative considered but dismissed from detailed analysis was the use of water trapping as the primary gather method. This alternative was dismissed from detailed study because wild horses obtain water from the Lahontan Reservoir therefore restricting access to the water source is not feasible in order to water trap the horses.

Gather and Remove Excess Wild Horses and Apply Two-Year PZP on a Three Year Gather Cycle

This alternative is not practical in order to ensure a viable population due to the small AML (7-10 animals) and significant overpopulation of wild horses that currently exists. This alternative was therefore eliminated from further consideration.

Remove or Reduce Livestock Grazing within the HMA

This alternative would still involve removing the majority of wild horses as they have established home ranges outside of the HMA. This alternative was not brought forward for detailed analysis because it is outside of the scope of the analysis, and is inconsistent with the decisions incorporated in the CRMP and the WFRHBA, which directs the Secretary to immediately remove excess wild horses, and is inconsistent with multiple use management. Livestock grazing can only be reduced or eliminated following the process outlined in the regulations found at 43 CFR Part 4100 and would require a

change in the CRMP. Such changes to livestock grazing cannot be made through a wild horse gather plan. Furthermore, there has been no grazing within the HMA for the past three years due to insufficient forage resulting from heavy utilization of vegetative resources by the excessive numbers of wild horses present within the HMA. For these reasons, this alternative was eliminated from further consideration.

Wild Horse Numbers Controlled by Natural Means

This alternative would use natural means, such as natural predation, to control the wild horse population. This alternative was eliminated from further consideration because it is contrary to the WFRHBA which requires the BLM to prevent the range from deterioration associated with an overpopulation of wild horses. It is also inconsistent with the CRMP, which directs BLM to manage wild horses in the Lahontan HMA for a thriving natural ecological balance. The alternative of using natural controls to achieve a desirable AML has not been shown to be feasible in the past. In addition, wild horses are a long-lived species with documented foal survival rates exceeding 95% and they are not a self-regulating species. This alternative would result in a steady increase in the wild horse population which would continue to exceed the carrying capacity of the range until severe or unusual conditions that occur periodically-- such as blizzards or extreme drought-- cause a catastrophic mortality of wild horses in the HMAs. Before such catastrophic mortality occurs, the overpopulation of wild horses would adversely wildlife habitat as native plants decline and the establishment and expansion of non-native and noxious weeds is facilitated by poor rangeland health.

3.0 Affected Environment/Environmental Consequences

General Setting

The HMA is located mostly within the LGA, and is south of the Lahontan Reservoir and the Carson River Delta. There are no water resources such as springs or creeks within the HMA and wild horses therefore access water at the Lahontan Reservoir. The average elevation is approximately 4,500 feet above sea level. The dominant vegetation consists of Bailey's greasewood (*Sarcobatus baileyi*), shadscale (*Atriplex confertifolia*), bottlebrush squirreltail (*Hesperashpa cormata*), Indian ricegrass (*Achnatherum hymenoides*), and needle-and-thread (*Elymus elymoides*).

Annual precipitation averages 7.5 inches per year. Most of this precipitation comes during the winter and spring months in the form of snow and rain, supplemented by localized thunderstorms during the summer months. Temperatures range from greater than 100 degrees Fahrenheit (°F) in the summer months to 0°F in the winter however, for the most part temperatures range from a low of 23 to a high of 94°F depending on the month. The area is also utilized by livestock (under terms and conditions outlined in grazing permits) and wildlife. Due to insufficient forage availability, livestock grazing has not occurred on the LGA since March of 2007.

Identification of Issues:

Internal scoping was conducted by an interdisciplinary team on March 22, 2010 that analyzed the potential consequences of the Proposed Action. Potential impacts to the following resources/concerns were evaluated in accordance with criteria listed in the BLM's NEPA Handbook (H-1790-1) (BLM, 2008) to determine if detailed analysis was required.

SUPPLEMENTAL AUTHORITIES

Appendix 1 of BLM's NEPA Handbook identifies Supplemental Authorities that are subject to requirements specified by statute or executive order and must be considered in all BLM environmental documents. Supplemental Authorities that may be affected by the Proposed Action are further described in this EA.

Table 3. Supplemental Authorities Considered for Analysis.

Supplemental Authority*	Not Present **	Present/ Not Affected **	Present/ May Be Affected ***	Rationale
Air Quality	X			The project area is not within an area of non-attainment or areas where total suspended particulates or other criteria pollutants exceed Nevada air quality standards. Particulate matter (dust) from the wild horse gather is expected to be similar to that occurring from normal herd movements, and any increase in particulate matter that might occur from herding the wild horses to the trap sites would be temporary and minimal in nature.
Areas of Critical Environmental Concern	X			Not Present.

Cultural Resources	X			A cultural resource review was conducted for both the holding facility and the trap site. The holding facility location has been previously inventoried and the trap site is within an existing area of disturbance. In the event these locations need to be relocated cultural resource staff will facilitate that process and ensure that no cultural resources are present.
Environmental Justice	X			No environmental justice issues are present at or near the project.
Farm Lands (prime or unique)	X			Not Present.
Forests and rangelands (HFRA Projects Only)	X			Not Present.
Human Health and Safety (Herbicide Projects)	X			No analysis needed as no safety concerns are expected, but a risk management worksheet would be prepared to mitigate any hazards that may present themselves.
Floodplains	X			No floodplains have been identified by HUD or FEMA within the project area. Floodplains as defined in Executive Order 11988 may exist in the area, but would not be affected by the Proposed Action.
Invasive, Nonnative and Noxious Species			X	Analysis in EA.
Migratory Birds			X	The Proposed Action would be planned to occur outside of Migratory Bird nesting season. However, habitat may be affected.
Native American Religious Concerns	X			During a face to face meeting (May 26, 2010) with the Fallon Paiute-Shoshone Tribe a discussion of the gather was brought forward. There were no concerns identified for the horse gather, however a copy of the EA was provided to the Tribe for review prior to the horse gather.
Threatened and/or Endangered Species	X			After consulting with the BLM wildlife biologist and the USFWS website for Nevada, there are no federally listed threatened or endangered species within the project area. (http://www.fws.gov/nevada/protected_species/species_by_county.html).
Wastes, Hazardous or Solid	X			No hazardous or solid wastes exist on the permit renewal area, nor would any be introduced.
Water Quality (Surface/Ground)	X			No effects to water quality are expected.
Riparian/Wetland Areas			X	Present on adjacent LSRA lands.
Wild and Scenic Rivers	X			Not Present.
Wilderness	X			Not Present.

**See H-1790-1 (January 2008) Appendix 1 Supplemental Authorities to be Considered.*

***Supplemental Authorities determined to be Not Present or Present/Not Affected need not be carried forward or discussed further in the document.*

****Supplemental Authorities determined to be Present/May Be Affected must be carried forward in the document.*

RESOURCES OR USES OTHER THAN SUPPLEMENTAL AUTHORITIES

The following resources or uses, which are not Supplemental Authorities as defined by BLM's Handbook H-1790-1, are present in the area. BLM specialists have evaluated the potential impact of the Proposed Action on these resources and documented their findings in the table below. Resources or uses that may be affected by the Proposed Action are further described in this EA.

Table 4. Other Resources Considered for Analysis.

Resource or Issue	Present/Not Affected#	Present/May Be Affected##	Rationale
BLM Sensitive Species		X	Analysis in EA.
General Wildlife		X	Analysis in EA.
Livestock Grazing		X	Analysis in EA.
Public Health and Safety		X	Analysis in EA.
Soil Resources		X	Analysis in EA.
Vegetation		X	Analysis in EA.
Visual Resources	X		

Wild Horses		X	Analysis in EA.
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#Resources or uses determined to be Present/Not Affected need not be carried forward or discussed further in the document.

##Resources or uses determined to be Present/May Be Affected must be carried forward in the document.

A. Wild Horses

Affected Environment

Wild horses are an introduced species within North America. Few natural controls act upon wild horse herds making them very competitive with native wildlife. Population inventory flights are conducted in the HMA every two to six years. The population inventory flights provide information pertaining to population numbers, foaling rates, distribution, and herd health. A population inventory for the Lahontan HMA was conducted in May 2010 using a direct count method. The BLM observed 104 wild horses, all outside the HMA boundaries. The number of wild horse documented in this inventory is approximately 10 times over the upper range of AML. Monitoring data shows that wild horses have negatively impacted rangelands in the HMA. In March of 2010, wild horse utilization of vegetative resources in the HMA was documented as heavy (61-80% utilization) based on use pattern mapping completed, which use exceeds the established utilization standards necessary for sustaining plant health.

Population modeling (Table 4) was completed for the HMA to analyze possible outcomes of how the Proposed Action would affect the wild horse population. The modeling also analyzed the effects of removing excess wild horses. The No Action Alternative (no gather) was also modeled. One objective of the modeling was to identify whether either of the alternatives would adversely impact the population or cause extremely low population numbers or growth rates. Minimum population levels and growth rates were found to be within reasonable levels and adverse impacts to the population are not likely. Graphic and tabular results are also displayed in detail in Appendix B.

Table 4. WinEquus Population Model Results for HMA.

Alternative	Minimum Population	Average Population	Maximum Population	Average Growth Rate (in %)	Gathered	Removed
A. Proposed Action	11	28	56	20	104	94
B. No Action	112	1087	3714	20	0	0

Environmental Consequences

Proposed Action

The Proposed Action would gather and remove excess wild horses from within and outside of the Lahontan HMA boundaries. Under this alternative, excess wild horses would be removed to the upper range of AML. Historically, gather efficiencies have averaged about 90 percent on this

HMA. At this level of efficiency, all the wild horses gathered would need to be removed in order to restore population size to within the established AML.

Decreased competition for forage should result in improved health and condition of mares and foals and in maintaining healthy range conditions over the long-term.

The Proposed Action would reduce damage to the range from the current excess population of wild horses and allow vegetation to recover over time, without the need for additional gathers once the Proposed Action is complete. As a result, there would be fewer disturbances to individual animals, the herd, and a stable wild horse social structure would be provided.

The removal of excess wild horses would reduce competition for forage, reduce animal stress levels and improve herd health.

Impacts to individual animals may occur as a result of handling stress associated with the gather, sorting, and transportation of animals. The intensity of these impacts varies by individual animal and is indicated by behaviors ranging from nervous agitation to physical distress. Other impacts to individual wild horses include separation of members of individual bands of wild horses and removal of animals from the population.

Indirect individual impacts are those impacts which occur to individual wild horses after the initial stress event, and may include spontaneous abortions in mares, and increased social displacement and conflict in studs. These impacts, like direct individual impacts, are known to occur intermittently during wild horse gather operations. An example of an indirect individual impact would be the brief skirmish which occurs among older studs following sorting and release into the stud pen, which lasts less than two minutes and ends when one stud retreats. Traumatic injuries usually do not result from these conflicts. These injuries typically involve a bite and/or kicking with bruises which don't break the skin. Like direct individual impacts, the frequency of occurrence of these impacts among a population varies with the individual animal.

Spontaneous abortion events among pregnant mares following capture is also rare, though poor body condition can increase the incidence of such spontaneous abortions. Given the timing of this gather, spontaneous abortion is not considered to be an issue for the proposed gather.

A few foals may be orphaned during the gather. This may occur due to:

- The mare rejects the foal. This occurs most often with young mothers or very young foals.
- The foal and mother become separated during sorting, and cannot be matched.
- The mare dies or must be humanely euthanized during the gather.
- The foal is ill, weak, or needs immediate special care that requires removal from the mother.
- The mother does not produce enough milk to support the foal.

Oftentimes, foals are gathered that were orphaned on the range (prior to the gather) because the mother rejected it or died. These foals are usually in poor, unthrifty condition. Orphans

encountered during gathers are cared for promptly and rarely die or have to be euthanized. Due to the timing of the proposed gather, it is unlikely that orphan foals will be encountered as the majority of the current year's (2010) foals will be weaned already from their mothers.

Gathering the wild horses during the fall/winter reduces risk of heat stress, although this can occur during any gather, especially in older or weaker animals. Adherence to the SOPs and techniques used by the gather contractor help minimize the risks of heat stress. Heat stress does not occur often; however, if an animal does experience heat stress, death can result. Most temperature related issues during a gather can be mitigated by adjusting daily gather times to avoid the extreme hot or cold periods of the day.

Through the capture and sorting process, wild horses are examined for health status, injury and other defects. Decisions to humanely euthanize animals in field situations would be made in conformance with BLM policy. BLM Euthanasia Policy Instruction Memorandum (IM) IM-2009-041 is used as a guide to determine if animals meet the criteria and should be euthanized. Animals that are euthanized for non-gather related reasons include those with old injuries (broken hip, leg) that have caused the animal to suffer from pain or which prevent the animal from being able to travel or maintain body condition; old animals that have lived a successful life on the range, but now have few teeth remaining, are in poor body condition, or are weak from old age; and wild horses that have congenital (genetic) or serious physical defects such as club foot, or sway back and should not be returned to the range.

Temporary Holding Facilities During Gathers

Wild horses gathered would be transported from the gather sites to a temporary holding corral in goose-neck trailers or straight-deck semi-tractor trailers. At the temporary holding facility, the wild horses would be aged and sorted into different pens based on sex. The wild horses would be provided an ample supply of good quality hay and water. Mares and their unweaned foals would be kept in pens together. Any wild horses identified for retention would be penned separately from those animals identified for removal as excess.

At the temporary holding facility, a veterinarian would provide recommendations to the BLM regarding care, treatment, and if necessary, euthanasia of the recently captured wild horses. Any animals affected by a chronic or incurable disease, injury, lameness or serious physical defect (such as severe tooth loss or wear, club foot, and other severe congenital abnormalities) would be humanely euthanized using methods acceptable to the American Veterinary Medical Association (AVMA).

Transport, Short-Term Holding Facility, and Adoption Preparation

Wild horses removed from the range would be transported to the receiving short-term holding facility in a goose-neck stock trailer or straight-deck semi-tractor trailers. Trucks and trailers used to haul the wild horses would be inspected prior to use to ensure wild horses can be safely transported. Wild horses would be segregated by age and sex when possible and loaded into separate compartments. Mares and their unweaned foals may be shipped together. Transportation of wild horses to short-term facilities is limited to a maximum of eight hours.

During transport, potential impacts to individual animals can include stress, as well as slipping, falling, kicking, biting, or being stepped on by another animal. Unless wild horses are in extremely poor condition, it is rare for an animal to die during transport.

Upon arrival at the short-term holding facility, wild horses are off-loaded by compartment and placed in holding pens where they are fed good quality hay and water. Most wild horses begin to eat and drink immediately and adjust rapidly to their new situation. At the short-term holding facility, a veterinarian provides recommendations to the BLM regarding care, treatment, and if necessary, euthanasia. Wild horses in very thin condition or animals with injuries are sorted and placed in hospital pens, fed separately and/or treated for their injuries. Mares in very thin condition may have difficulty transitioning to feed. A small percentage of animals can die during this transition.

After wild horses have transitioned to their new environment, they are prepared for adoption or sale. Preparation involves freeze-marking the animals with a unique identification number, vaccination against common diseases, castration, and de-worming. During the preparation process, potential impacts to wild horses are similar to those that can occur during transport. Injury or mortality during the preparation process is low, but can occur.

At a short-term holding facility, a minimum of 700 square feet is provided per animal. Mortality averages approximately 5 percent (GAO, 2008), which includes animals euthanized due to a pre-existing conditions, animals in extremely poor condition, animals that are injured and would not recover, animals which are unable to transition to feed; and animals which die accidentally during sorting, handling, or preparation.

Adoption

Applicants for adoption are required to have at least a 400 square foot corral with panels that are at least six feet tall. Applicants are required to provide adequate shelter, feed, and water for adopted horses. The BLM retains title to the horse for one year and the horse and facilities are inspected. After one year, the applicant may receive title and the horse becomes the property of the applicant. Adoptions are conducted in accordance with 43 CFR § 4750.

Sale with Limitation

Buyers must fill out an application and be pre-approved before they may buy a wild horse. A sale-eligible wild horse is any animal that is more than 10 years old or has been offered unsuccessfully for adoption at least three times. The application also specifies that all buyers are not to sell to slaughter houses or anyone who would sell the animals to a commercial processing plant. The sale of wild horses is conducted in accordance with the WFRHBA and any Congressional limitations.

Long-Term Pastures

During the past three years, the BLM has removed 19,414 excess wild horses or burros from public lands in the western states. Most animals not immediately adopted or sold have been

transported to long-term grassland pastures in the Midwest.

Potential impacts to wild horses from transport to adoption, sale or Long-Term Pastures (LTPs) are similar to those previously described. One difference is that when shipping wild horses for adoption, sale or LTP, animals may be transported for a maximum of 24 hours. Immediately prior to transportation, and after every 24 hours of transportation, animals are off-loaded and provided a minimum of eight hours on-the-ground rest. During the rest period, each animal is provided access to unlimited amounts of clean water and two pounds of good quality hay per 100 pounds of body weight with adequate bunk space to allow all animals to eat at one time. The rest period may be waived in situations where the anticipated travel time exceeds the 24-hour limit but the stress of off-loading and reloading is likely to be greater than the stress involved in the additional period of uninterrupted travel.

LTPs are designed to provide excess wild horses with humane, and in some cases life-long care in a natural setting off the public rangelands. Wild horses are maintained in grassland pastures large enough to allow free-roaming behavior and with the forage, water, and shelter necessary to sustain them in good condition. About 22,700 wild horses that are in excess of the current adoption or sale demand (because of age or other factors such as economic recession), are currently located on privately-owned pastures in Oklahoma, Kansas, and South Dakota. The BLM cannot grant or require public access to these pastures. Any decision as to access would be on the part of the landowner. Establishment of LTPs is subject to a separate NEPA and decision-making process. Located in mid or tall grass prairie regions of the United States, these LTPs are highly productive grasslands compared to more arid western rangelands. These pastures comprise about 256,000 acres (an average of about 10-11 acres per animal). Of the animals currently located in LTPs, less than one percent is age 0-4 years, 49 percent are age 5-10 years, and about 51 percent are age 11+ years.

Mares and sterilized stallions (geldings) are segregated into separate pastures except at one facility where geldings and mares coexist. Although the animals are placed in LTPs, they remain available for adoption or sale to qualified individuals; and foals born to pregnant mares in LTPs are gathered and weaned when they reach about 8-12 months of age and are also made available for adoption. The LTP contracts specify the care that wild horses must receive to ensure they remain healthy and well-cared for. Handling by humans is minimized to the extent possible although regular on-the-ground observation by the LTP contractor and periodic counts of the wild horses to ascertain their well being and safety are conducted by BLM personnel and/or veterinarians. A very small percentage of the animals may be humanely euthanized if they are in very poor condition due to age or other factors. Although wild horses residing on LTP facilities live longer on average, than wild horses residing on public rangelands, natural mortality of wild horses in LTPs averages approximately 8 percent per year, but can be higher or lower depending on the average age of the wild horses pastured there (GAO, 2008).

Euthanasia and Sale Without Limitation

While euthanasia of healthy excess wild horses in excess of adoption demand and sale without limitation is allowed under the WFRHBA, these options have been limited by Congressional appropriations and are not available under the Department of the Interior's Fiscal Year 2010

budget appropriations. Even in the absence of Congressional restrictions on the use of appropriate funds, it would be contrary to BLM policy to euthanize healthy excess wild horses, which are instead, sent to long-term pastures.

Wild Horses Remaining or Released into the HMA following a Gather

Under the Proposed Action, the post-gather population of wild horses would be about ten wild horses, which is at the upper range of the AML for the HMA. Reducing population size would also ensure that the remaining wild horses are healthy and vigorous, and not at risk of death or suffering from starvation due to insufficient habitat.

The wild horses that are not captured may be temporarily disturbed and move into another area during the gather operations. With the exception of changes to herd demographics, direct population-wide impacts have proven, over the last 20 years, to be temporary in nature with most if not all impacts disappearing within hours to several days of when wild horses are released back into the HMA. For any horses that are gathered and released, no observable effects associated with these impacts would be expected within one month of release, except for a heightened awareness of human presence.

As a result of lower density of wild horses across the area following the removal of excess wild horses, competition for rangeland resources would be reduced, allowing wild horses to utilize preferred, quality habitat within the HMA. Confrontations between stallions would also become less frequent, as would fighting among wild horse bands at water sources. Achieving the AML and improving the overall health and fitness of wild horses could also increase foaling rates and foaling survival rates over the current conditions.

The primary effects to the wild horse population that would be directly related to this proposed gather would be to herd population dynamics, age structure or sex ratio, and subsequently to the growth rates and population size over time.

The wild horses not gathered or those animals gathered then re-released would maintain their social structure and herd demographics (age and sex ratios). No observable effects to the remaining population associated with the gather impacts would be expected except a heightened shyness toward human contact.

Impacts to the rangeland as a result of the current excess population of wild horses would be reduced under the Proposed Action. Fighting among studs would decrease since they would protect their position at water sources less frequently; injuries and death to all age classes of animals would also be expected to be reduced as competition for limited forage and water resources is decreased.

No Action Alternative

Under the No Action Alternative, excess wild horses would not be removed from within or outside the boundaries of the HMA at this time. The animals would not be subject to the individual direct or indirect impacts of a gather operation. Over the short-term, individuals in the herds would be subject to increased stress and higher mortality as a result of increased

competition for water and forage as the wild horse population continues to grow. The number of areas experiencing severe over-utilization by wild horses would increase over time. This would be expected to result in increasing damage to rangeland resources throughout the HMA. Trampling and trailing damage by wild horses in/around riparian areas in the LSRA would also be expected, resulting in larger, more extensive areas of bare ground. Competition for available (and increasingly limited) forage between wild horses, livestock, and native wildlife would increase.

Wild horses are a long-lived species with documented survival rates exceeding 92 percent for all age classes and do not have the ability to self-regulate their population size based on available habitat. Predation and disease have not substantially regulated wild horse population levels. Coyotes are not prone to prey on wild horses unless they are young or extremely weak and other large predators are not common. As a result, there would be a steady increase in wild horse numbers for the foreseeable future, which would continue to exceed the carrying capacity of the range. Individual wild horses would be at greater risk of death by starvation. The population of wild horses would compete for the available forage resources, affecting mares and foals most severely. Social stresses would increase. Fighting among male wild horses would increase as they protect their position at water sources, as well as injuries and death to all age classes of animals. Significant losses of wild horses due to starvation would have obvious consequences to the long-term viability of the herd. Decline of rangeland health and irreparable damage to vegetation, soil and riparian resources (on LSRA lands), would cause significant impacts to the future of the HMA and surrounding area. As a result, the No Action Alternative would not ensure healthy rangelands, would not allow for the management of a healthy, self-sustaining wild horse population, and would not promote a thriving natural ecological balance.

As wild horse populations continue to increase even further beyond the capacity of the available habitat, more bands of wild horses would leave the boundaries of the HMA in search of forage and water. The No Action Alternative would result in increasing numbers of wild horses in areas not designated for their use. This would be contrary to the WFRHBA and would not achieve the stated objectives for wild horse herd management areas, i.e., to “prevent the range from deterioration associated with overpopulation,” and “preserve and maintain a thriving natural ecological balance and multiple use relationship in that area.”

If the population of wild horses were allowed to increase unchecked, most of the palatable forage plants would eventually be replaced by unpalatable, and in many cases noxious weeds, negatively affecting wildlife. Noxious, non-native weeds prevent the re-colonization of disturbed areas by native plants. As noxious, non-native weeds increase, native wildlife populations may decline due to deteriorating habitat conditions.

B. Riparian/Wetland Areas

Affected Environment

There are no water sources within the HMA; the wild horses obtain their water from the nearby Carson River and Lahontan Reservoir. No continuous fencing exists to prevent wild horses from moving into the LSRA. Wild horses use the riparian areas along the Carson River and shores of

the Lahontan Reservoir, and a seasonably flooded area to the east of the HMA which supports many mature cottonwood trees. When cattle are on the LGA (which has not occurred since 2007), wild horses may also utilize well water pumped for livestock purposes.

Environmental Consequences

Proposed Action

Managing wild horse populations within the established AML would be expected to prevent damage to riparian habitats. Trampling of riparian vegetation would be prevented. Utilization of the available forage areas would be reduced to within allowable levels. Over the long-term, continued management of wild horses within the established AML would be expected to result in healthier, more vigorous vegetation communities. There would also be reduced competition among wildlife, wild horses, and livestock.

No Action Alternative

Under the No Action Alternative, wild horse populations would continue to grow. Over the long-term, as riparian areas deteriorate and vegetation is lost, soil erosion would increase.

C. General Wildlife

Affected Environment

Based on the Southwest Regional GAP Analysis Project, the Nevada Department of Wildlife's Wildlife Action Plan (2006) characterized Nevada's vegetative land cover into eight broad ecological system groups and linked those with key habitat types, which are further refined into ecological systems characterized by plant communities (USGS, 2005). Key habitats can be used to infer likely occurrences of wildlife species assemblages when survey data are lacking. Key habitat types and associated ecological systems (plant communities) that potentially could be affected directly or indirectly by the Proposed Action are displayed in Table 5. A few of the known or potential wildlife species that could be supported by the plant communities are displayed in Table 6. Because intensive plant and animal surveys have not been completed, not all species in the tables may currently be present within or outside the HMA.

Mule deer (*Odocoileus hemionus*) generally feed on forbs, grasses and shrubs depending on the time of year. Forbs and grasses are most important in spring and summer, while shrubs are most utilized during the winter and dry summer months. Approximately 12 percent (1,375 acres) of the HMA is mule deer habitat (NDOW, 2004). Occupancy is limited by forage and water availability. The HMA is not within delineated desert bighorn sheep, pronghorn, or black bear habitat (NDOW 2005, 2006a, 2006b).

Table 5: Key Habitat Types and Ecological Systems (Plant Communities) in the HMA that Could Potentially be Affected Based on SWReGAP Descriptions (USGS, 2005).

Key Habitat and Associated Ecological Systems	Potential Plant Species	Scientific name
Key Habitat — Intermountain Cold Desert Scrub	Alkali Sacaton	<i>Sporobolus airoides</i>

Key Habitat and Associated Ecological Systems	Potential Plant Species	Scientific name
Ecological System — Intermountain Basins Mixed Salt Desert Scrub	Big Galleta	<i>Pleuraphis rigida</i>
	Bud Sagebrush	<i>Picrothamnus desertorum</i>
Ecological System — Intermountain Basins Greasewood Flat	Common Spikerush	<i>Eleocharis palustris</i>
	Fourwing Saltbush	<i>Atriplex canescens</i>
Key Habitat — Desert Playas and Ephemeral Pools	Galleta	<i>Pleuraphis jamesii</i>
	Greasewood	<i>Sarcobatus vermiculatus</i>
Ecological System — Intermountain Basins Playas	Great Basin Wildrye	<i>Leymus cinereus</i>
	Indian Ricegrass	<i>Achnatherum hymenoides</i>
	Lemon's Alkali Grass	<i>Puccinellia lemmonii</i>
	Nevada Jointfir	<i>Ephedra nevadensis</i>
	Pickle Weed	<i>Allenrolfea occidentalis</i>
	Rubber Rabbitbrush	<i>Ericameria nauseosa</i>
	Salt Grass	<i>Distichlis spicata</i>
	Saltbush Spp	<i>Atriplex spp</i>
	Saltgrass	<i>Distichlis spicata</i>
	Sandberg Bluegrass	<i>Poa secunda</i>
	Shadscale Saltbush	<i>Atriplex confertifolia</i>
	Spiny Hopsage	<i>Grayia spinosa</i>
	Western Wheatgrass	<i>Pascopyrum smithii</i>
	Winterfat	<i>Krascheninnikovia lanata</i>
	Yellow Rabbitbrush	<i>Chrysothamnus viscidiflorus</i>

Table 6: General wildlife, BLM Sensitive Species, and migratory bird species of conservation concern that may use components of the habitat within the HMA (BLM 2003, 2007).

Key Habitats	Potential Wildlife Species	Scientific name	BLM Sensitive Species	Listed as per IM 2008-050 (Dec. 2007)	Primary Habitat Use Affected
Key Habitat — Intermountain Cold Desert Scrub	Black-tailed Jack Rabbit	<i>Lepus californicus</i>	No	N/A	Food sources and thermal cover
	Black-throated Sparrow	<i>Amphispiza bilineata</i>	No	No	Increased nesting cover
	Brewer's Sparrow	<i>Spizella breweri</i>	No	Yes	Increased nesting cover
Key Habitat — Desert Playas and Ephemeral Pools	Burrowing owl	<i>Athene cunicularia</i>	Yes	Yes	Increased food sources
	Coachwhip	<i>Masticophisflagellum</i>	No	N/A	Food sources and thermal cover
	Common Side-blotched Lizard	<i>Uta stansburiana</i>	No	N/A	Food sources and thermal cover
	Dark Kangaroo Mouse	<i>Microdipodops megacephalus</i>	No	N/A	Food sources and thermal cover
	Desert Horned Lizard	<i>Phrynosoma platyrhinos</i>	No	N/A	Food sources and thermal cover
	Desert Spiny	<i>Sceloporus magister</i>	No	N/A	Food sources and thermal

					cover
	Ferruginous hawk	<i>Buteo regalis</i>	Yes	Yes	Increased prey base
	Golden eagle	<i>Aquila chrysaetos</i>	Yes	Yes	Increased prey base
	Great Basin Collared Lizard	<i>Crotaphytus bicinctores</i>	No	N/A	Food sources and thermal cover
	Great Basin Rattlesnake	<i>Crotalus viridis lutosus</i>	No	N/A	Food sources and thermal cover
	Kit Fox	<i>Vulpes macrotis</i>	No	N/A	Increased prey base
	Loggerhead shrike	<i>Lanius ludovicianus</i>	Yes	Yes	Increased nesting cover and prey base
	Long-nosed Leopard Lizard	<i>Gambelia wislizenii</i>	No	N/A	Food sources and thermal cover
	Pale Kangaroo Mouse	<i>Microdipodops pallidus</i>	No	N/A	Food sources and thermal cover
	Pallid bat	<i>Antrozous pallidus</i>	Yes	N/A	Increased prey base
	Prairie Falcon	<i>Falco mexicanus</i>	Yes	Yes	Increased prey base
	Sage sparrow	<i>Amphispiza belli</i>	No	Yes	Increased nesting cover
	Western Fence Lizard	<i>Sceloporus occidentalis</i>	No	N/A	Food sources and thermal cover
	Western Whiptail	<i>Cnemidophorus tigris</i>	No	N/A	Food sources and thermal cover
	Zebra-tailed Lizard	<i>Callisaurus draconoides</i>	No	N/A	Food sources and thermal cover

Environmental Consequences

Proposed Action

Under the Proposed Action, beneficial indirect effects to wildlife resources would be expected from a reduction in horse numbers to within the AML. Beneficial effects would a reduction in the heavy utilization that is occurring and prevention of the overall habitat degradation associated with excess wild horse populations. Over-utilization of forage is occurring and habitat degradation results in decreased forage and cover available to wildlife. This may be resulting in a depressed prey base for wildlife species that forage in the HMA and surrounding area. Continued over-utilization of vegetative resources could decrease the abundance of wildlife species that inhabit the area over time. Under the Proposed Action, managing horses within AML should provide adequate habitat requirements of forage, cover, and space for wildlife species. Benefits would also be expected to vegetation and wildlife outside the HMA at the Carson River and Lahontan Reservoir where horses obtain water. Management of horses within AML would likely result in healthier, more vigorous riparian vegetation in these areas.

Overall, if the gather is successful in achieving AML and reducing the wild horse population, less competition for forage would benefit species dependent on these key habitats for food and cover. Additionally, small mammals are a prey base for many species. Thus, species such as raptors and carnivores that prey on wildlife that inhabit these plant communities may benefit from an increase in prey abundance over time.

No Action Alternative

Under the No Action Alternative, wildlife habitat degradation associated with excess wild horse populations would continue unabated. Wild horses primarily eat native bunchgrasses; consequently dietary overlap between wild horses and mule deer has been documented as minimal (one percent) (Hanley and Hanley 1982, Hansen et al. 1977). However, utilization of forage by wild horses within the HMA has been documented as heavy (61 – 80 percent) (Figure 2) and wild horses would start to consume shrubs if there are insufficient grasses available. Livestock grazing has been in voluntary non-use since 2007 due to insufficient forage availability. Over-utilization of vegetation and water sources by wild horses is a factor in decreasing plant diversity and in changing habitat structure (Beever and Brussard 2000). A less diverse plant community can be vulnerable to fire and to invasive grasses such as cheatgrass. This invasive annual grass displaces native perennial shrub, grass, and forb species because of its ability to germinate quicker and earlier than native species, thus outcompeting natives for water and nutrients. Cheatgrass is also adapted to recurring fires that are perpetuated in part by the fine dead fuels that it leaves behind. In general, most native wildlife has a difficult time thriving in these altered fire regimes because diverse native vegetation is required for food and cover. Beever et al. (2008) conducted a study of vegetation response to removal of wild horses in 1997 and 1998. The paper concluded that horse-removed sites exhibited 1.1–1.9 times greater shrub cover, 1.2–1.5 times greater total plant cover, 2–12 species greater plant species richness, and 1.9–2.9 times greater cover and 1.1–2.4 times greater frequency of native grasses than did horse-occupied sites.

While no water exists within the HMA, wild horses obtain water from the Carson River and Lahontan Reservoir. They utilize the riparian areas along the Carson River and shores of the Lahontan Reservoir and a seasonably flooded area to the east of the HMA which supports many mature cottonwood trees. Decreased cover and diversity of grasses and shrubs as well as decreased mammal burrow density have been documented from wild horses at water sources (Beever and Brussard 2000, Ganskopp and Vavra 1986).

Under the No Action Alternative, continued over-utilization of forage by wild horses would further degrade wildlife habitat by decreasing forage and cover available to wildlife. Over time this would likely decrease the abundance of most wildlife species that inhabit the HMA and surrounding area.

D. BLM Sensitive Species

Affected Environment

BLM sensitive species must be native species found on BLM-administered lands for which the BLM has the capability to significantly affect the conservation status of the species through management, and either:

1. There is information that a species has recently undergone, is undergoing, or is predicted to undergo a downward trend such that the viability of the species or a distinct population segment of the species is at risk across all or a significant portion of the species range, or
2. The species depends on ecological refugia or specialized or unique habitats on BLM-administered lands, and there is evidence that such areas are threatened with alteration such that the continued viability of the species in that area would be at risk.

A list of sensitive animal and plant species associated with BLM lands in Nevada was signed in 2003. The key habitat types within the HMA are described in the General Wildlife section. The BLM sensitive animal species that occur or are likely to occur in the HMA, and their primary habitat use of the HMA, are listed in Table 6 above. No BLM sensitive plant species are known to occur in the project area.

Environmental Consequences

Proposed Action

Under the Proposed Action, impacts would generally be the same to BLM sensitive species as described in the General Wildlife section. For reasons described in the General Wildlife section, managing horses within AML should lead to better habitat conditions that, over time, may benefit sensitive species by providing a more diverse vegetation structure and composition that provides for the habitat requirements of any given species.

If the gather is successful in reducing the wild horse population, less utilization of forage would benefit BLM sensitive species dependent on the vegetation for food and cover. Additionally, BLM sensitive species such as golden eagle or burrowing owl that prey on wildlife that inhabit the HMA may benefit from an increased prey base over time.

No Action Alternative

Under the No Action Alternative, continued over-utilization of vegetative resources would further degrade habitat, which would decrease forage and cover available to BLM sensitive species. The prey base for BLM sensitive species that forage in the area could also decline. Over time, this could decrease the abundance of BLM sensitive species that inhabit the HMA and surrounding area.

E. Migratory Birds

Affected Environment

On January 11, 2001, President Clinton signed Executive Order (E.O.) 13186 (Land Bird Strategic Project) placing emphasis on conservation and management of migratory birds. Migratory birds are protected under the Migratory Bird Treaty Act (MBTA) of 1918 and the E.O. addresses the responsibilities of federal agencies to protect migratory birds by taking actions to implement the MBTA. BLM management for these species is based on IM 2008-050 dated December 18, 2007 (BLM, 2007). The key habitat types within the HMA are described in the Affected Environment of the General Wildlife section. The migratory bird species that occur or are likely to occur and their primary habitat uses in the project area are shown in Table 6 above.

Environmental Consequences

Proposed Action

Under the Proposed Action, the gather operation would not be expected to directly impact breeding populations of migratory birds because it would occur in winter, outside the breeding season. Direct, short-term, localized impacts could occur to resident birds during the gather from potential displacement of individual birds. For reasons described in the General Wildlife section, managing horses within AML should lead to better habitat conditions that, over time, may benefit migratory bird species by providing a more diverse vegetation structure and composition that provides for the habitat requirements of any given species. If the gather is successful in reducing the wild horse population to AML, the reduced utilization of vegetative resources by wild horses would benefit migratory birds dependent on the vegetation for food and cover.

No Action Alternative

Under the No Action Alternative, there would be no direct, short-term, localized impacts from potential displacement of migratory birds because of gather operations. However, the excess horse population could indirectly cause long-term adverse impacts to wildlife and their habitat within and outside of the HMA. Continued over-utilization of forage by horses would further degrade the habitat and decrease food sources and cover available to migratory birds that may nest and forage within the HMA and surrounding area. Over time, this could decrease the abundance of species that inhabit the area.

F. Livestock Grazing

Affected Environment

The LGA encompasses most of the HMA (Figure 1). Permitted use on the LGA is for cattle grazing, from November 1 through March 31 each year (Table 7). Available AUMs within the HMA are divided between wild horses (120 AUMs) and livestock (122 AUMs). Due to insufficient forage availability, cattle grazing has not occurred on the LGA since March of 2007.

Table 7. Grazing Allotment Details.

Allotment	Season of Use	Total Acres	% of Allotment in HMA
Lahontan	11/1 to 3/31	52,910	21%

Environmental Consequences

Proposed Action

Livestock have not been placed on the LGA since March of 2007 due to insufficient forage availability. If livestock were present during gather operations, they could be temporarily disturbed or displaced by the helicopter and the increased vehicle traffic during the gather operations. Once the gather operations are over, however, livestock would move back into the area.

The indirect effects of achieving the established AML would include improved rangeland health throughout the area. Managing wild horses within the established AML would help promote an increase in forage availability and quality. Removing excess wild horses from both within and outside the HMA boundaries would reduce competition for forage and provide vegetation with rest periods from grazing, thus allowing for the improvement of rangeland health.

No Action Alternative

Under the No Action Alternative, livestock (if present) would not be displaced or disturbed because gather operations would not take place. The indirect effects of implementation of the No Action Alternative would be the continued increase of the wild horse population within and outside the boundaries of the HMA. Effects to rangeland health would be proportionate with population size and increasing vegetative utilization levels. A decline in rangeland health due to plant stress and deterioration of desirable plant species would affect the ability to use the LGA for permitted livestock grazing.

G. Noxious Weeds and Invasive Non-Native Species

Affected Environment

Within Nevada, noxious weeds are defined in the Nevada Revised Statutes (NRS) 555.05 as “any species of plant which is, or is likely to be, detrimental or destructive and difficult to control or eradicate.” Noxious weed species documented within the area are tall white top (*Lepidium latifolium*) and hoary cress (*Lepidium draba*). Changes in plant community composition away from non-native plants can negatively affect wildlife, livestock and wild horses by changing fire regimes, habitat structure, and available forage.

Proposed Action

The Proposed Action may spread existing noxious or invasive weed species. This could occur if

vehicles used for the gather drive through infestations and spread seed into previously weed-free areas. This would likely have only minor impacts to weed spread since disturbance areas would be minimal and vehicles would primarily use existing roads. The contractor together with the contracting officer's representative or project inspector (COR/PI) would examine proposed trap sites and holding corrals for noxious weeds prior to construction. If noxious weeds are found, the location of the facilities would be moved to avoid weeds. Any off-road equipment exposed to weed infestations would be cleaned before moving into weed free areas. All trap sites, holding facilities, and camping areas on public lands would be monitored for weeds during the next several years. Despite short-term risks of additional weed spread, over the long-term the reduction in wild horse numbers and the subsequent recovery of the native vegetation could result in decreased susceptibility of the range to the invasion and spread of non-native plant species.

No Action Alternative

Under the No Action Alternative, the wild horse gather would be deferred. The potential for the spread of noxious weeds during gather operations would not occur. However, continued overgrazing of the native plant communities by excess numbers of wild horses could lead to an expansion of noxious weeds and invasive non-native species as vegetative resources continue to degrade.

H. Vegetation

Vegetation within the HMA consists mainly of black greasewood, Indian ricegrass, bottlebrush squirreltail, and assorted forb species.

The Proposed Action would impact vegetation temporarily as a result of trampling and disturbance of vegetation at trap sites. The direct and indirect effects of such disturbance would be minimal, since trap sites will be located in previously disturbed areas.

Rangeland or wild horse monitoring data collected from the HMA shows that vegetative utilization attributable to wild horses has increased to heavy use in most parts of the HMA, negatively impacting the health of vegetative resources. Heavy utilization has been documented even with no livestock grazing within the LGA since March of 2007.

Environmental Consequences

Proposed Action

Removal of excess wild horses and implementation of the Proposed Action would reduce the wild horse population to within AML, thereby reducing stress on vegetation communities. Rangeland health and vegetation resources would improve with the reduced wild horse population. Vegetative species would not experience over-utilization by wild horses, which would lead to healthier, more vigorous forage plants and plant communities. This would result in an increase in forage availability, vegetation density, vigor, productivity, cover, and plant reproduction.

Impacts to vegetation with implementation of the Proposed Action would include disturbance of native vegetation immediately in and around temporary trap sites and at holding and processing facilities. Impacts would be by vehicle traffic and the hoof action of penned wild horses, and would be locally severe in the immediate vicinity of the corrals or holding facilities. Generally, these activity sites would be small (less than one half acre) in size. Since most trap sites and holding facilities are located on previously disturbed areas and would be re-used during recurring wild horse gather operations, any impacts would remain site-specific and isolated in nature. In addition, most trap sites or holding facilities are selected to enable easy access by transportation vehicles and logistical support equipment and would generally be adjacent to or on existing roads, pullouts, water haul sites, or other flat spots that were previously disturbed.

Implementation of the Proposed Action would reduce the current wild horse population to the established AML and provide the opportunity for the vegetative communities to progress toward achieving a thriving natural ecological balance. By achieving AML, vegetative utilization by wild horses would be reduced, which would result in improved forage availability, improved vegetation density, increased vegetation cover, increased plant vigor, and improved seed production, seedling establishment, and forage production over current conditions. Higher quality forage species (grasses) would be available. Competition for forage among wild horses, wildlife, and livestock would be reduced as utilization levels decrease and rangeland health improves; thereby promoting healthier habitat and healthier animals. Allotment specific utilization objectives would not be exceeded due to heavy use by wild horses. Reduced concentrations of wild horses following removal of excess wild horses would contribute to the recovery of the vegetative resources. Physical damage to shrubs and herbaceous vegetation associated with the physical passage of wild horses (as wild horse bands move through the HMA) would also be decreased.

No Action Alternative

Under the No Action Alternative, wild horse populations would continue to increase in excess of the AML. The current and increasing wild horse use of vegetative resources throughout the area would adversely impact vegetation health. As native plant health deteriorates and plants are lost, invasive, non-native plant species would colonize new areas following soil disturbance and reduced native plant vigor and abundance. Wild horses likely transport weed propagules, and this seed dispersing would increase as horse numbers increase. This would lead to a shift in plant composition towards non-native weedy species. Under the No Action Alternative, localized trampling associated with trap sites would not occur, but this alternative would not make progress towards achieving and maintaining rangeland health.

I. Soil Resources

Affected Environment

The majority of the HMA consists of deep sandy soils (Patna, Hough, Isolde, and Rusty soil series) that are intermixed with areas of small sand dunes, badlands and playettes. The hazard of wind erosion is moderate to high, and soils range from mildly alkaline or neutral, to strongly saline in the playettes.

The southeastern portion of the HMA consists of deep, fine-textured soils (Lahontan, Orizaba, and Delp soil series) that are strongly alkaline to strongly saline. The hazard of water or wind erosion is slight in this area and soil permeability is very slow. Water may pond for short periods following precipitation events. Precipitation in the area is low, averaging 7.5 inches per year.

Three major range sites (27-009, 27-018 and 27-025) comprise 95 percent of the HMA and are described below:

Sandy Soil, 5-8 in., precipitation zone. (027XY 009NV)

1. Associated species: Indian ricegrass, needle-and-thread, four-wing salt brush, Winterfat, Nevada delea and spiny Hopsage.
2. Occurs on sand sheets deposited over various land forms. Slopes range from 0 to 30 percent. Elevations are 3,500 ft to 4,500 ft.
3. Soils are deep, excessively drained and formed in alluvium.
4. Annual vegetative production in average years is 450 lb/acre.

Gravelly Loam, 4 to 6 in. precipitation zone. (027XY 018NV)

1. Associated species: Indian ricegrass, bottlebrush squirreltail, shadscale, Bailey greasewood and bud sagebrush.
2. Occurs on fan piedmonts. Slopes range from 0 to 30 percent, but slope gradients of 2 to 15 percent are most typical. Elevations are 3,400 ft to 5,000 ft.
3. Soils are typically shallow to a restrictive layer, well drained and formed in alluvium.
4. Annual vegetative production in average years is 250 lb/acre.

Sodic Flat, 4 to 8 in. precipitation zone. (027XY 025NV)

1. Associated species: Inland Saltgrass, black greasewood, shadscale and seepweed.
2. Occurs on the lower portion of lake plains and alluvial flats. Slopes range from 0 to 4 percent. Elevations are 3,300 ft to 4,000 ft.
3. Soils are deep, well drained and formed in mixed alluvium.
4. Annual vegetative production in average years is 350 lb/acre.

Environmental Consequences

Proposed Action

Removing excess wild horses would make progress towards achieving rangeland health and would allow BLM to manage wild horses on the public lands so as to achieve a thriving natural ecological balance. Implementation of the Proposed Action would reduce the wild horse population to within the AML. Rangeland health and soil resources would improve with the reduced population in the long-term.

Overall, soil conditions are expected to improve after wild horse numbers are reduced. Fewer numbers of wild horses using riparian areas as they access water would prevent soil compaction. Compression related impacts to biological soil crusts from wild horses would be lessened over the area with horse removal, and crust cover would increase. Following wild horse removal, increased vegetative and biological soil crust cover should reduce wind and water erosion.

Impacts to soils with implementation of the Proposed Action would include disturbance around temporary trap sites, and holding and processing facilities. Impacts would be by vehicle traffic and the hoof action of penned wild horses, and would be locally severe in the immediate vicinity of the corrals or holding facilities. Generally, these activity sites would be small (less than one half acre) in size. Soil compaction, localized wind erosion, and destruction of biological soil crusts where present, would occur at the trap sites. Since most trap sites and holding facilities are re-used during for wild horse gather operations, impacts would remain site-specific and isolated in nature. In addition, most trap sites or holding facilities are selected to enable easy access by transportation vehicles and logistical support equipment and would generally be adjacent to or on existing roads, pullouts, water haul sites, or other flat spots that were previously disturbed. Vehicles used in the horse gather could also cause soil compaction and increased erosion in small areas where most activities are taking place. By adhering to the SOPs, potential adverse impacts to soils would be minimized.

No Action Alternative

Under the No Action Alternative, excess wild horse populations would continue to grow. Increased horse use throughout the area would adversely impact soils. As native plant health deteriorates and plants are lost, soil erosion would increase. Continued heavy and severe wild horse use would cause further soil compaction, reduced infiltration, increased runoff and erosion, and loss of biological soil crusts. The greatest disturbance impacts to biological crusts would occur when the soils are dry. The shallow soils typical of this region cannot tolerate much loss through erosion without losing productivity and thus the ability to be re-vegetated with native plants. Invasive, non-native plant species would increase and invade new areas following increased soil disturbance and the associated reduction in native plant vigor and abundance. Wild horses likely transport weed propagules, and this potential to transport weeds would increase as horse numbers increase. This would lead to both a shift in plant composition towards weedy species and an irreplaceable loss of topsoil and productivity due to erosion. Under the No Action Alternative, the severe localized trampling associated with trap sites would not occur, but this alternative would not make progress towards achieving rangeland health and would not

allow BLM to manage the public lands in the area for a thriving natural ecological balance.

J. Public Health and Safety

Affected Environment

In recent gathers, members of the public have increasingly traveled to the public lands to observe BLM's gather operations. While most members of the public follow BLM's directions necessary to ensure the safety of the public, BLM staff and contractors and wild horses during the gathers, a few members of the public have actively taken or attempted to take actions to obstruct or interfere with the wild horse gather operations, such as by driving into unauthorized areas attempting to enter into or be close to the pens where wild horses are being held following the gather. Members of the public can also inadvertently wander into areas that put them in the path of wild horses that are being herded or handled during the gather operations. Such activities, whether intentional or accidental, not only hamper the gather operations, but more importantly, create the potential for injury to the wild horses or burros and to the BLM employees and contractors conducting the gather and/or handling the horses as well as to the public themselves. Because these horses are wild animals, there is always the potential for injury when individuals get too close to or inadvertently get in the way of gather activities.

The helicopter work is done at various heights above the ground, from as little as 10-15 feet (when herding the animals the last short distance to the gather corral) to several hundred feet (when doing a recon of the area). While helicopters are highly maneuverable and the pilots are very skilled in their operation, unknown and unexpected obstacles in their path can impact their ability to react, creating an extreme safety concern. These same unknown and unexpected obstacles can impact the wild horses or burros being herded by the helicopter in that they may not be able to react in time to avoid members of the public in their path. When the helicopter is working close to the ground, the rotor wash of the helicopter is a safety concern by potentially causing loose vegetation, dirt, and other objects to fly through the air which can strike or land on anyone in close proximity as well as cause decreased vision.

Public observation of the gather activities on public lands will be allowed, subject to restrictions necessary to ensure the health and safety of the public, BLM employees and contractors and the wild horses, and would be consistent with BLM IM No. 2010-164 (Appendix D).

Environmental Consequences

Proposed Action

Public safety as well as that of the BLM and contractor staff is a concern during gather operations. During the herding process, wild horses or burros will try to flee if they perceive that something or someone suddenly blocks or crosses their path. Fleeing horses can go through wire fences, traverse unstable terrain, and go through areas that they normally don't travel in order to get away, all of which can lead them to injure people by striking or trampling them if they are in the animals path.

Disturbances in and around the gather and holding corral have the potential to injure the BLM and contractor staff who are trying to sort, move and care for the horses and burros by causing them to be kicked, struck, and possibly trampled by the animals trying to flee. Such disturbances also have the potential for similar harm to the public themselves.

BLM's Observation Protocols will ensure public safety during gather operations and if these protocols are not sufficient (or if members of the public fail to abide by such protocols), BLM may implement a temporary closure of roads or put in place other restrictions during the gather operations to allow for safe and effective operations to proceed. Public observation of the gather would be consistent with IM No. 2010-164 (Appendix D).

No Action Alternative

Under the No Action Alternative, the gather would be deferred. There would be no safety concerns to BLM employees, contractors and the general public as no gather activities would occur.

4.0 Cumulative Impacts

A cumulative impact is defined under NEPA as “the change in the environment which results from the incremental impact of the action, decision, or project when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other action” (40 CFR Part 1508.7). “Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (40 CFR 1508.7).

The cumulative impact analysis area is the HMA, the LGA and adjacent LSRA (Figure 1).

Past, Present, and Reasonably Foreseeable Actions

The past, present, and reasonably foreseeable future actions applicable to the assessment area are identified as the following:

Table 8.

Project -- Name or Description	Status (x)		
	Past	Present	Future
Issuance of multiple use decisions and grazing permits for ranching operations through the allotment evaluation process and the reassessment of the associated allotments.	X	X	X
Livestock grazing.	X		X
Wild horse gathers.	X	X	X
Recreation.	X	X	X
Invasive weed inventory/treatments.	X	X	X
Wild horse issues, issuance of multiple use decisions AML adjustments and planning.	X	X	X

Any future proposed projects within the HMA would be analyzed in a separate environmental document following site specific planning. Future project planning would also include public involvement.

4.1 Past Actions

Past actions included the establishment of wild horse HMAs, establishment of AML for wild horses, wild horse gathers, livestock grazing and recreational activities throughout the area. Some of these activities have increased infestations of invasive plants, noxious weeds, and pests.

4.2 Present Actions

The HMA and surrounding area has an estimated population of 104 wild horses. Resource damage is occurring in the HMA. Wild horses in this area have established home ranges that include areas outside of the HMA, including the other portions of the LGA and adjacent LSRA. Horse movement outside the HMA is occurring because no continuous fencing exists to prevent

such movement, vegetation within the HMA has been heavily utilized by wild horses so they have moved outside the HMA in search of additional forage, and water sources are located outside the HMA. Over the past decades, program goals under the WFRHBA have expanded beyond establishing a “thriving natural ecological balance” (by setting the AML) for individual herds based on long-term monitoring, to achieving and maintaining healthy, viable, vigorous, and stable populations by managing the wild horses within AML.

Current mandates prohibit the destruction of healthy animals that are removed or deemed to be excess. Only sick, lame, or dangerous animals can be euthanized, and destruction of healthy excess animals is not used by BLM as a population control method. A recent amendment to the WFRHBA allows the sale of excess wild horses that are over 10 years in age or have been offered unsuccessfully for adoption three times. BLM is adding additional long-term holding grassland pastures in the Midwest to care for excess wild horses for which there is no adoption or sale demand.

Public interest in the welfare and management of wild horses is as high as it has ever been. Many different values pertaining to wild horse management form current wild horse perceptions. Wild horses are viewed as nuisances, as well as living symbols of the pioneer spirit.

Monitoring of vegetation resources, vegetative treatments, rangeland health, and watershed health continues. Within the HMA wild horse grazing occurs on a yearly basis, whereas livestock grazing is normally permitted between November 1 and March 31. Due to insufficient forage availability, livestock grazing has not occurred on the LGA since March of 2007.

The focus of wild horse management has also expanded to place more emphasis on achieving rangeland health as measured through the Resource Advisory Council standards.

4.3 Reasonably Foreseeable Future Actions

In the future, the BLM would manage wild horses within HMAs that have suitable habitat for a population range, while maintaining genetic diversity, age structure, and sex ratios. The BLM would continue to conduct monitoring to assess progress toward meeting rangeland health standards. Wild horses would continue to be a component of the public lands, managed within a multiple use concept.

While there is no anticipation for amendments to the WFRHBA that would change the way wild horses could be managed on the public lands, the Act has been amended three times since 1971. Therefore, there is potential for amendment as a reasonably foreseeable future action.

The gather area contains a variety of resources and supports a variety of uses. Any alternative course of wild horse management has the opportunity to affect and be affected by other authorized activities ongoing in and adjacent to the area. Future activities which would be expected to contribute to the cumulative effects of implementing the Proposed Action include: future wild horse gathers, continuing livestock grazing within the area, development of range improvements, new or continuing infestations of invasive plants, noxious weeds, and pests and their associated treatments, and continued native wildlife populations and recreational activities historically associated with them.

4.4 Impacts Analysis

Proposed Action

Cumulative beneficial effects would be expected from implementation of the Proposed Action. Vegetation conditions would improve, which would in turn positively impact livestock, native wildlife, water resources and wild horses populations as forage (habitat) quantity and quality is improved. Gathering and removing excess wild horses from within and outside the boundaries of the HMA would likely benefit resources in the adjoining areas, as wild horses that fall within the AML range would not have to seek forage outside of the HMA boundaries due to excess horse numbers. Over the next 10 to 15 year period, continuing to manage wild horses within the established AML range would result in improved vegetation condition, which in turn would result in improved vegetation density, cover, vigor, seed production, seedling establishment and forage production over current conditions. Managing wild horse populations within the established AML would allow the primary forage plant species to return more rapidly even though some vegetation conditions may never be able to return to their potential. Maintaining AML over a sustained period of time would allow for the collection of scientific data to evaluate AML levels.

No Action Alternative

Under the No Action Alternative, the wild horse population in the HMA and surrounding area could exceed 162 head in two years. Increased movement of wild horses outside the boundaries of the HMA can be expected as the number of horses within the HMA increase. Horses would move in search of sufficient vegetative resources and habitat for survival, thus impacting larger areas of public lands within the LGA. Heavy and severe utilization of available forage would be expected. Allowing the wild horse population to continue to grow beyond the current population numbers would be likely to result in a population crash during the next decade. Wild horses, wildlife and livestock would not have sufficient forage. All animals would experience higher mortality. Ecological communities and habitat resources would not be able to sustain the wild horse population. Rangeland health would degrade, possibly below biological thresholds, making recovery unlikely if not impossible as cheatgrass, and other invasive non-native species dominate the understory, further degrading ecological conditions.

Emergency removals could be expected in order to prevent individual animals from suffering or death as a result of insufficient forage and habitat. During emergency conditions, competition for available forage is heightened and generally impacts the older and youngest wild horses as well as lactating mares first. These groups would experience significant weight loss and diminished health, which could result in prolonged suffering and their eventual death. If emergency actions are not taken (prior to or in response to these events), the overall population could be affected by severely skewed sex ratios towards stallions (generally the strongest and healthiest portion of the population) and a significantly altered age structure. In addition, habitat resources would be over-utilized and progress toward or achievement of rangeland health standards would not be possible.

Adverse cumulative effects would result from the No Action Alternative as a result of the

foregone opportunity to remove excess wild horses, a necessary pre-requisite to improving rangeland health and to BLM's ability to properly manage wild horses in balance with other multiple uses. Over-utilization of vegetation and other habitat resources would occur as wild horse populations continue to increase. Wild horse populations would be expected to eventually crash at some ecological threshold; however wild horses and wildlife would all experience higher mortality as rangeland resources continue to degrade and use of rangelands for livestock grazing would be precluded due to poor rangeland health conditions resulting from excess wild horse grazing. Attainment of CRMP objectives and Standards for Rangeland Health and Wild Horses and Burros Populations would not be achieved. BLM would be unable to achieve the AML or to manage wild horses for a TNEB.

The combination of the past, present, and reasonably foreseeable future actions, along with the Proposed Action, should result in a more stable and healthier wild horse population in the HMA, healthier rangelands, and fewer multiple-use conflicts within the HMA and surrounding area.

4.5 Mitigation Measures and Suggested Monitoring

Proven measures to mitigate impacts of the gather on wild horses and on rangeland resources, along with monitoring, are incorporated into the Proposed Action through Standard Operating Procedures (Appendix A), which have been developed over time and represent the "best methods" for reducing impacts associated with gathering, handling, and transporting wild horses and for collecting herd data. Hair samples to establish a genetic baseline for the HMA wild horses would be collected, and additional samples would be collected during future gathers (in 10 to 15 years) to determine trend. Should monitoring indicate genetic diversity is not being adequately maintained, one to two mares and/or studs from HMAs in similar environments would be added every generation (every 8 to 10 years) to avoid inbreeding depression and to maintain acceptable genetic diversity. Ongoing resource monitoring, including climate (weather), and forage utilization, population inventory, and distribution data would continue to be collected.

5.0 Consultation and Coordination

State-Wide Meeting

Public hearings are held annually on a state-wide basis regarding the use of motorized vehicles, including helicopters and fixed-wing aircraft, in the management of wild horses (or burros) as required by 43 CFR 4740.1(b). During these meetings, the public is given the opportunity to present new information and to voice any concerns regarding the use of motorized vehicles. The Elko District Office held a Nevada state-wide meeting on July 1, 2010; 13 public participants attended and their comments were entered into the record for the hearing. Most were in support of the use of helicopters and the gathering of excess wild horses. Standard Operating Procedures were reviewed in response to these concerns and no changes to the SOPs were indicated based on this review.

The use of helicopters and motorized vehicles has proven to be a safe, effective and practical means for the gather and removal of excess wild horses and burros from the range. Since July 2004, Nevada has gathered 26,000 animals with a mortality rate of 1.1 percent (of which 0.5 percent was due to gather operations) which is very low when handling wild animals. BLM also avoids gathering wild horses prior to and during the peak foaling season and therefore does not conduct helicopter removals of wild horses from March 1 through June 30.

Public Involvement and Review

Comments were accepted on the *Lahontan Herd Management Area Gather Plan Environmental Assessment*, DOI-BLM-NV-C020-2010-0018-EA, during a 30-day period that ran from August 23, 2010 until September 21, 2010, although comments received in a timely manner after this date were also considered. Hard copies of the EA were available at the Carson City District Office. The EA was posted at:

http://www.blm.gov/nv/st/en/fo/carson_city_field/blm_programs/wild_horse_and_burro/lahontan_hma_2010.html.

See Appendix C for Comments and Responses to Comments.

5.1 List of Preparers

Bureau of Land Management

Name	Title	Specialty
John Axtell	Wild Horse & Burro Specialist	Wild Horse & Burro Specialist
John Wilson	Wildlife Biologist	Wildlife, Migratory Birds, Special Status Species
Jim DeLaurel	Soil Scientist	Non-Native Invasive Species, Including Noxious Weeds, Soil, Water
Chip Kramer	NEPA Coordinator	NEPA, Air Quality, Environmental Justice, Human Health and Safety
Linda Appel	Rangeland Management	Livestock Grazing

	Specialist	
Susan McCabe	Archaeologist	Cultural Resources, Native American Religious Concerns
Brian Buttazoni	NEPA Coordinator	NEPA
Katrina Leavitt	Rangeland Management Specialist	Livestock Grazing
Pilar Ziegler	Wildlife Biologist	Wildlife, Migratory Birds, Special Status Species
Alan Shepherd	Wild Horse & Burro Program Lead	Nevada State Office Wild Horse & Burro Program Lead

5.2 Tribes, Individuals, Organizations or Agencies Consulted

Tribes

Fallon Paiute-Shoshone Tribe
Pyramid Lake Paiute Tribe
Yerington Paiute Tribe

Individuals

Adams, Pauline
Barnard, Harmon
Bennett, William
Brooks, Elaine
Butler, Etta
Butte, Virginia
Cormack, Ray
Dahl, Joe
Downer, Craig
Drews, Michael
Dufurrena, Tim
Faria, Gregory
Freeman, Virginia
Glass, Alana Mae
Hall, Anne
Hana, Jo Ann
Herzog, Patricia
Kelly, Betty
Kirk, Michael
Kunow, Rebecca
Lamm, Willis
Laybourne, Dennis
Manning, Pat
Martins, Anne
Matton, Bonie
Matton, Charles
McNitt, Mandy
Molini, William

Nappe, Tina
Paine, Ernest
Peterson, William
Reeves, Elnoma
Robison, Mark
Rochanne, Downs
Royle, Roberta
Siegel, Steven
Strykowski, Vicki
Warner, Barbara
Young, Craig

Organizations

American Horse Protection Association
Animal Welfare Institute
Center for Biological Diversity
Cooperative Extension
Nevada Cattlemen's Association
Nevada Farm Bureau
National Wildlife Federation
Nevada Woolgrowers Association
Sierra Club
Sierra Club, Toiyabe Chapter
Sustainable Grazing Coalition
The Fund for Animals
Western Watersheds Project
Wild Horses Forever
Walking Horses Owner Association (WHOA)

Agencies

Lyon County Commissioners
Lyon County Manager
Nevada Commission for the Preservation of Wild Horses
Nevada Department of Wildlife
Nevada Grazing Board
Nevada State Clearinghouse
U.S. House of Representatives, Honorable Dean Heller
U.S. Senate, Honorable Harry Reid
U.S. Senate, Honorable John Ensign
U.S. Bureau of Reclamation, Lahontan Area Office

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FIGURE 1. PHOTOS OF THE LAHONTAN HERD.



Lahontan herd north of the Carson River delta, Lahontan State Recreation Area (outside of the HMA) August 2010.

FIGURE 2. HERD MANGEMENT AREA AND ALLOTTMENT.

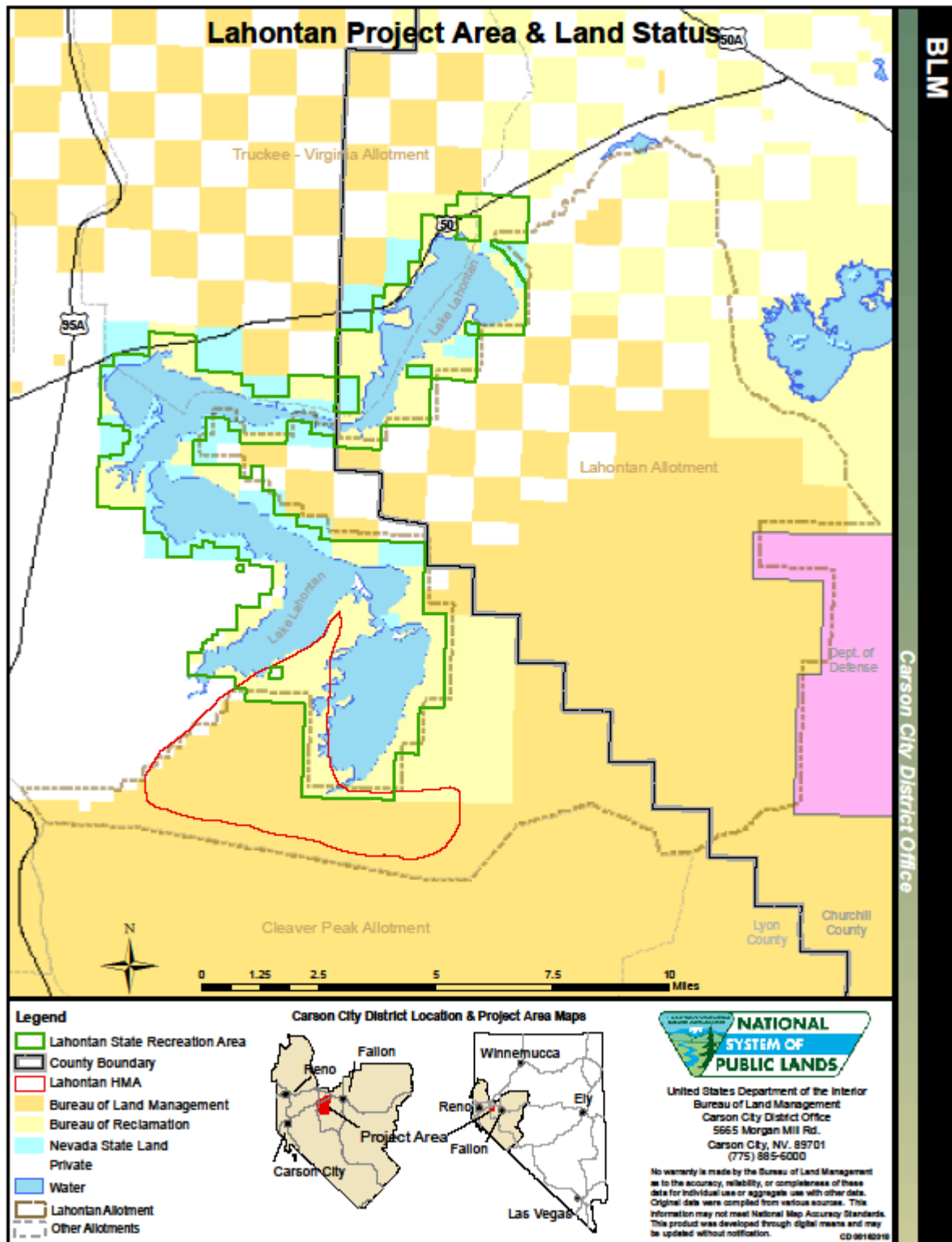
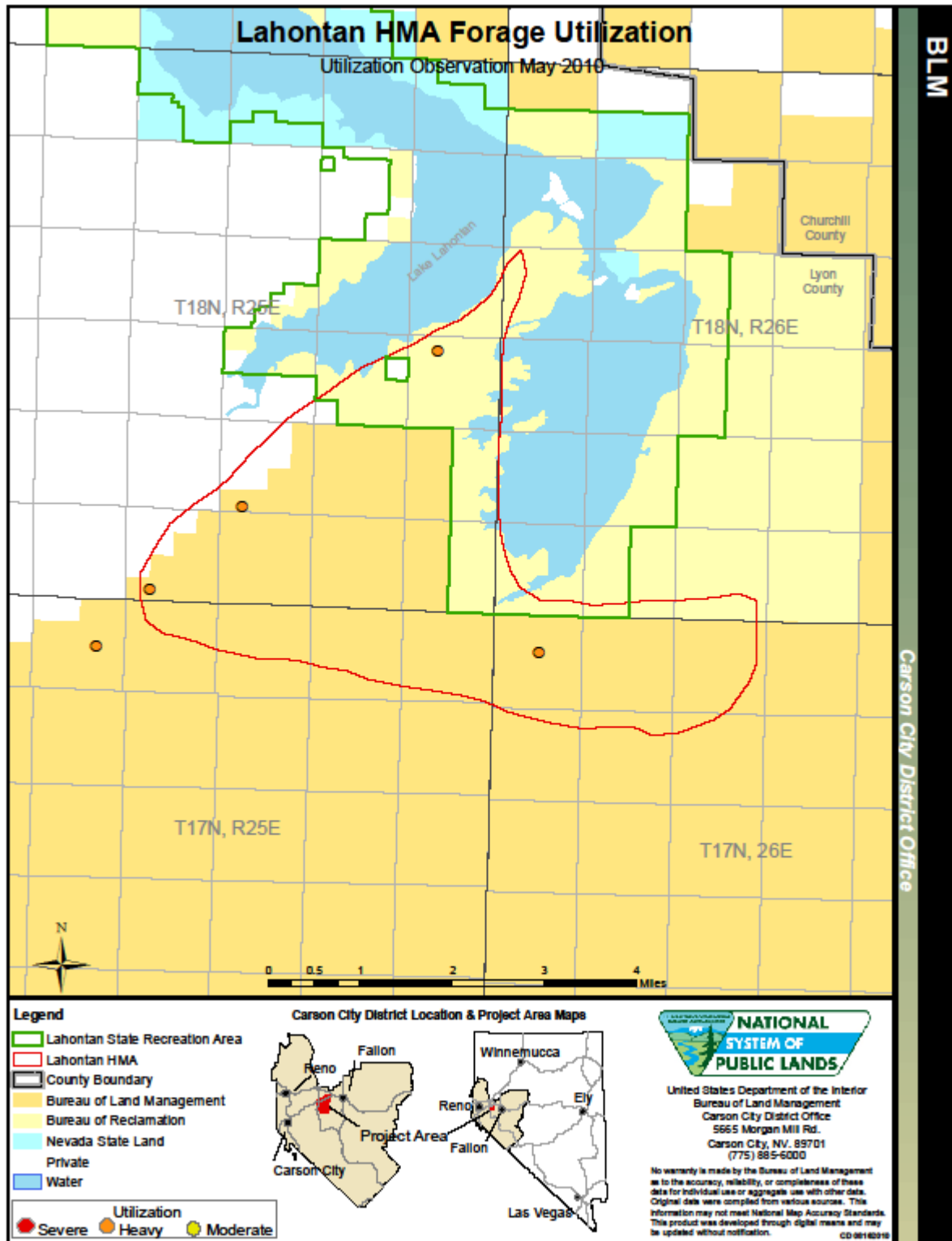


FIGURE 3. UTILIZATION MAP.



APPENDIX A

STANDARD OPERATING PROCEDURES

Gathers would be conducted by utilizing contractors from the Wild Horse Gathers-Western States Contract, or BLM personnel. The following procedures for gathering and handling wild horses would apply whether a contractor or BLM personnel conduct a gather. For helicopter gathers conducted by BLM personnel, gather operations will be conducted in conformance with the *Wild Horse Aviation Management Handbook* (January 2009).

Prior to any gathering operation, the BLM will provide for a pre-gather evaluation of existing conditions in the gather area(s). The evaluation will include animal conditions, prevailing temperatures, drought conditions, soil conditions, road conditions, and a topographic map with wilderness boundaries, the location of fences, other physical barriers, and acceptable trap locations in relation to animal distribution. The evaluation will determine whether the proposed activities will necessitate the presence of a veterinarian during operations. If it is determined that a large number of animals may need to be euthanized or gather operations could be facilitated by a veterinarian, these services would be arranged before the gather would proceed. The contractor will be apprised of all conditions and will be given instructions regarding the gather and handling of animals to ensure their health and welfare is protected.

Trap sites and temporary holding sites will be located to reduce the likelihood of injury and stress to the animals, and to minimize potential damage to the natural resources of the area. These sites would be located on or near existing roads whenever possible.

The primary gather methods used in the performance of gather operations include:

1. Helicopter Drive Trapping. This gather method involves utilizing a helicopter to herd wild horses into a temporary trap.
2. Helicopter Assisted Roping. This gather method involves utilizing a helicopter to herd wild horses or burros to ropers.
3. Bait Trapping. This gather method involves utilizing bait (e.g., water or feed) to lure wild horses into a temporary trap.

The following procedures and stipulations will be followed to ensure the welfare, safety and humane treatment of wild horses in accordance with the provisions of 43 CFR 4700.

A. Gather Methods used in the Performance of Gather Contract Operations

1. The primary concern of the contractor is the safe and humane handling of all animals gathered. All gather attempts shall incorporate the following:

All trap and holding facilities locations must be approved by the Contracting Officer's Representative (COR) and/or the Project Inspector (PI) prior to construction. The Contractor may also be required to change or move trap locations as determined by the COR/PI. All traps and holding facilities not located on public land must have prior

written approval of the landowner.

2. The rate of movement and distance the animals travel shall not exceed limitations set by the COR who will consider terrain, physical barriers, access limitations, weather, extreme temperature (high and low), condition of the animals, urgency of the operation (animals facing drought, starvation, fire rehabilitation, etc.) and other factors. In consultation with the contractor the distance the animals travel will account for the different factors listed above and concerns with each HMA.
3. All traps, wings, and holding facilities shall be constructed, maintained and operated to handle the animals in a safe and humane manner and be in accordance with the following:
 - a. Traps and holding facilities shall be constructed of portable panels, the top of which shall not be less than 72 inches high for wild horses and 60 inches for burros, and the bottom rail of which shall not be more than 12 inches from ground level. All traps and holding facilities shall be oval or round in design.
 - b. All loading chute sides shall be a minimum of 6 feet high and shall be fully covered, plywood, metal without holes larger than 2" x 4".
 - c. All runways shall be a minimum of 30 feet long and a minimum of 6 feet high for wild horses, and 5 feet high for burros, and shall be covered with plywood, burlap, plastic snow fence or like material a minimum of 1 foot to 5 feet above ground level for burros and 1 foot to 6 feet for wild horses. The location of the government furnished portable fly chute to restrain, age, or provide additional care for the animals shall be placed in the runway in a manner as instructed by or in concurrence with the COR/PI.
 - d. All crowding pens including the gates leading to the runways shall be covered with a material which prevents the animals from seeing out (plywood, burlap, plastic snow fence, etc.) and shall be covered a minimum of 1 foot to 5 feet above ground level for burros and 2 feet to 6 feet for wild horses
 - e. All pens and runways used for the movement and handling of animals shall be connected with hinged self-locking or sliding gates.
4. No modification of existing fences will be made without authorization from the COR/PI. The Contractor shall be responsible for restoration of any fence modification which he has made.
5. When dust conditions occur within or adjacent to the trap or holding facility, the Contractor shall be required to wet down the ground with water.
6. Alternate pens, within the holding facility shall be furnished by the Contractor to separate mares or jennies with small foals, sick and injured animals, strays or other animals the

COR determines need to be housed in a separate pen from the other animals. Animals shall be sorted as to age, number, size, temperament, sex, and condition when in the holding facility so as to minimize, to the extent possible, injury due to fighting and trampling. Under normal conditions, the government will require that animals be restrained for the purpose of determining an animal's age, sex, or other necessary procedures. In these instances, a portable restraining chute may be necessary and will be provided by the government. Alternate pens shall be furnished by the Contractor to hold animals if the specific gathering requires that animals be released back into the gather area(s). In areas requiring one or more satellite traps, and where a centralized holding facility is utilized, the contractor may be required to provide additional holding pens to segregate animals transported from remote locations so they may be returned to their traditional ranges. Either segregation or temporary marking and later segregation will be at the discretion of the COR.

7. The Contractor shall provide animals held in the traps and/or holding facilities with a continuous supply of fresh clean water at a minimum rate of 10 gallons per animal per day. Animals held for 10 hours or more in the traps or holding facilities shall be provided good quality hay at the rate of not less than two pounds of hay per 100 pounds of estimated body weight per day. The contractor will supply certified weed free hay if required by State, County, and Federal regulation.

An animal that is held at a temporary holding facility through the night is defined as a horse/burro feed day. An animal that is held for only a portion of a day and is shipped or released does not constitute a feed day.

8. It is the responsibility of the Contractor to provide security to prevent loss, injury or death of gathered animals until delivery to final destination.
9. The Contractor shall restrain sick or injured animals if treatment is necessary. The COR/PI will determine if animals must be euthanized and provide for the destruction of such animals. The Contractor may be required to humanely euthanize animals in the field and to dispose of the carcasses as directed by the COR/PI.
10. Animals shall be transported to their final destination from temporary holding facilities as quickly as possible after gather unless prior approval is granted by the COR for unusual circumstances. Animals to be released back into the HMA following gather operations may be held up to 21 days or as directed by the COR. Animals shall not be held in traps and/or temporary holding facilities on days when there is no work being conducted except as specified by the COR. The Contractor shall schedule shipments of animals to arrive at final destination between 7:00 a.m. and 4:00 p.m. No shipments shall be scheduled to arrive at final destination on Sunday and Federal holidays, unless prior approval has been obtained by the COR. Animals shall not be allowed to remain standing on trucks while not in transport for a combined period of greater than three (3) hours in any 24 hour period. Animals that are to be released back into the gather area may need to be transported back to the original trap site. This determination will be at the discretion of the COR/PI or Field Office horse specialist.

B. Gather Methods That May Be Used in the Performance of a Gather

1. Gather attempts may be accomplished by utilizing bait (feed, water, mineral licks) to lure animals into a temporary trap. If this gather method is selected, the following applies:
 - a. Finger gates shall not be constructed of materials such as "T" posts, sharpened willows, etc., that may be injurious to animals.
 - b. All trigger and/or trip gate devices must be approved by the COR/PI prior to gather of animals.
 - c. Traps shall be checked a minimum of once every 10 hours.
2. Gather attempts may be accomplished by utilizing a helicopter to drive animals into a temporary trap. If the contractor selects this method the following applies:
 - a. A minimum of two saddle-wild horses shall be immediately available at the trap site to accomplish roping if necessary. Roping shall be done as determined by the COR/PI. Under no circumstances shall animals be tied down for more than one half hour.
 - b. The contractor shall assure that foals shall not be left behind, and orphaned.
3. Gather attempts may be accomplished by utilizing a helicopter to drive animals to ropers. If the contractor, with the approval of the COR/PI, selects this method the following applies:
 - a. Under no circumstances shall animals be tied down for more than one hour.
 - b. The contractor shall assure that foals shall not be left behind, or orphaned.
 - c. The rate of movement and distance the animals travel shall not exceed limitations set by the COR/PI who will consider terrain, physical barriers, weather, condition of the animals and other factors.

C. Use of Motorized Equipment

1. All motorized equipment employed in the transportation of gathered animals shall be in compliance with appropriate State and Federal laws and regulations applicable to the humane transportation of animals. The Contractor shall provide the COR/PI, if requested, with a current safety inspection (less than one year old) for all motorized equipment and tractor-trailers used to transport animals to final destination.
2. All motorized equipment, tractor-trailers, and stock trailers shall be in good repair, of adequate rated capacity, and operated so as to ensure that gathered animals are

transported without undue risk or injury.

3. Only tractor-trailers or stock trailers with a covered top shall be allowed for transporting animals from trap site(s) to temporary holding facilities, and from temporary holding facilities to final destination(s). Sides or stock racks of all trailers used for transporting animals shall be a minimum height of 6 feet 6 inches from the floor. Single deck tractor-trailers 40 feet or longer shall have at least two (2) partition gates providing at least three (3) compartments within the trailer to separate animals. Tractor-trailers less than 40 feet shall have at least one partition gate providing at least two (2) compartments within the trailer to separate the animals. Compartments in all tractor-trailers shall be of equal size plus or minus 10 percent. Each partition shall be a minimum of 6 feet high and shall have a minimum 5 foot wide swinging gate. The use of double deck tractor-trailers is unacceptable and shall not be allowed.
4. All tractor-trailers used to transport animals to final destination(s) shall be equipped with at least one (1) door at the rear end of the trailer which is capable of sliding either horizontally or vertically. The rear door(s) of tractor-trailers and stock trailers must be capable of opening the full width of the trailer. Panels facing the inside of all trailers must be free of sharp edges or holes that could cause injury to the animals. The material facing the inside of all trailers must be strong enough so that the animals cannot push their hooves through the side. Final approval of tractor-trailers and stock trailers used to transport animals shall be held by the COR/PI.
5. Floors of tractor-trailers, stock trailers and loading chutes shall be covered and maintained with wood shavings to prevent the animals from slipping as much as possible during transport.
6. Animals to be loaded and transported in any trailer shall be as directed by the COR/PI and may include limitations on numbers according to age, size, sex, temperament and animal condition. The following minimum square feet per animal shall be allowed in all trailers:
 - 11 square feet per adult horse (1.4 linear foot in an 8 foot wide trailer);
 - 8 square feet per adult burro (1.0 linear foot in an 8 foot wide trailer);
 - 6 square feet per horse foal (.75 linear foot in an 8 foot wide trailer);
 - 4 square feet per burro foal (.50 linear feet in an 8 foot wide trailer).
7. The COR/PI shall consider the condition and size of the animals, weather conditions, distance to be transported, or other factors when planning for the movement of gathered animals. The COR/PI shall provide for any brand and/or inspection services required for the gathered animals.
8. If the COR/PI determines that dust conditions are such that the animals could be endangered during transportation, the Contractor will be instructed to adjust speed.

D. Safety and Communications

1. The Contractor shall have the means to communicate with the COR/PI and all contractor personnel engaged in the gather of wild horses utilizing a VHF/FM Transceiver or VHF/FM portable Two-Way radio. If communications are ineffective the government will take steps necessary to protect the welfare of the animals.
 - a. The proper operation, service and maintenance of all contractor furnished property is the responsibility of the Contractor. The BLM reserves the right to remove from service any contractor personnel or contractor furnished equipment which, in the opinion of the contracting officer or COR/PI violate contract rules, are unsafe or otherwise unsatisfactory. In this event, the Contractor will be notified in writing to furnish replacement personnel or equipment within 48 hours of notification. All such replacements must be approved in advance of operation by the Contracting Officer or his/her representative.
 - b. The Contractor shall obtain the necessary FCC licenses for the radio system
 - c. All accidents occurring during the performance of any task order shall be immediately reported to the COR/PI.
2. Should the contractor choose to utilize a helicopter the following will apply:
 - a. The Contractor must operate in compliance with Federal Aviation Regulations, Part 91. Pilots provided by the Contractor shall comply with the Contractor's Federal Aviation Certificates, applicable regulations of the State in which the gather is located.
 - b. Fueling operations shall not take place within 1,000 feet of animals.

G. Site Clearances

No personnel working at gather sites may excavate, remove, damage, or otherwise alter or deface or attempt to excavate, remove, damage or otherwise alter or deface any archaeological resource located on public lands or Indian lands.

Prior to setting up a trap or temporary holding facility, BLM will conduct all necessary clearances (archaeological, T&E, etc). All proposed site(s) must be inspected by a government archaeologist. Once archaeological clearance has been obtained, the trap or temporary holding facility may be set up. Said clearance shall be arranged for by the COR, PI, or other BLM employees.

Gather sites and temporary holding facilities would not be constructed on wetlands or riparian zones.

H. Animal Characteristics and Behavior

Releases of wild horses would be near available water when possible. If the area is new to them, a short-term adjustment period may be required while the wild horses become familiar with the new area.

I. Public Participation

Opportunities for public viewing (i.e. media, interested public) of gather operations will be made available to the extent possible; however, the primary considerations will be to protect the health, safety and welfare of the animals being gathered and the personnel involved. The public must adhere to guidance from the on-site BLM representative. It is BLM policy that the public will not be allowed to come into direct contact with wild horses or burros being held in BLM facilities. Only authorized BLM personnel or contractors may enter the corrals or directly handle the animals. The general public may not enter the corrals or directly handle the animals at any time or for any reason during BLM operations.

J. Responsibility and Lines of Communication

Contracting Officer's Representative/Project Inspector

John Axtell, Wild Horse and Burro Specialist, Carson City District Office

Alan Shepherd, Wild Horse & Burro Program Lead, Nevada State Office

The CORs and the PIs have the direct responsibility to ensure the Contractor's compliance with the contract stipulations. The Supervisory Natural Resource Specialists and the Field Managers will take an active role to ensure the appropriate lines of communication are established between the field, Field Office, State Office, National Program Office, and BLM Holding Facility offices. All employees involved in the gathering operations will keep the best interests of the animals at the forefront at all times.

All publicity, formal public contact and inquiries will be handled through the Field Manager and/or the Supervisory Natural Resource Specialist and Field Office Public Affairs. These individuals will be the primary contact and will coordinate with the COR/PI on any inquiries.

The COR will coordinate with the contractor and the BLM Corrals to ensure animals are being transported from the gather site in a safe and humane manner and are arriving in good condition.

The contract specifications require humane treatment and care of the animals during removal operations. These specifications are designed to minimize the risk of injury and death during and after gather of the animals. The specifications will be vigorously enforced.

Should the Contractor show negligence and/or not perform according to contract stipulations, he will be issued written instructions, stop work orders, or defaulted.

APPENDIX B

Wild Horse Population Modeling

A program developed by Stephen Jenkins (WinEquus, version 1.40, April 2002) was used to compare possible outcomes of various management scenarios designed to provide individuals interested in population dynamics an understanding of possible population responses to various management strategies was run for the targeted population levels of this HMA using several scenarios, namely: removals only, and no management. Dr. Jenkins does make the disclaimer that this model should not be used to make management decisions, the intended use is to convey a range of possible population responses to certain perturbations. These different scenarios provide a forecast regarding the number of expected excess wild horses in the future, which would be considered when selecting the preferred alternative.

Objectives of Population Modeling

Review of the data output for each of the simulations provided useful comparisons of the possible outcomes for each alternative.

All simulations used the survival probabilities, foaling rates, and sex ratio at birth that was supplied with the WinEquus population for the Garfield HMA, located in another portion of the CCDO. This data was used because it has the best recruitment and mortality data.

Population Modeling Criteria

The following summarizes the population modeling criteria used for the Proposed Action:

- Starting year: 2010
- Initial Gather Year: 2010
- Gather interval: regular interval of four years
- Sex ratio at birth: 57 percent males
- Percent of the population that can be gathered: 100 percent
- Foals are not included in the AML
- Simulations were run for 20 years with 100 trials each

Population Modeling Parameters

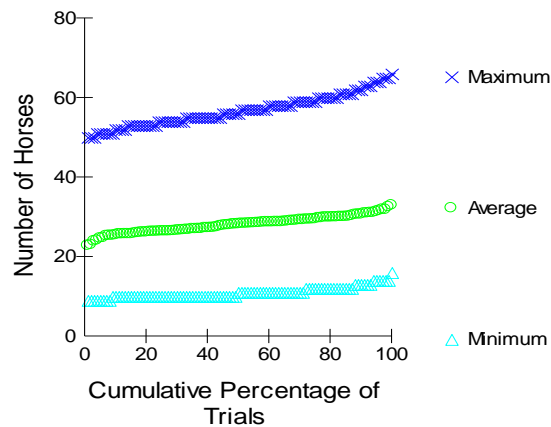
Modeling Parameter	Alternative A Proposed Action Remove to High point of AML	Alternative B No Action No Removal & No Fertility Control
Management by removal only	Yes	N/A
Threshold Population Size Following Gathers	50	N/A
Target Population Size Following gather	10	N/A

The AML of the HMA is 7-10 animals, however, for the purpose of the model 50 was used since in the foreseeable future a gather would not be conducted for only a few wild horses.

Results- Alternative A: Proposed Action

Population Size

0 to 20+ year-old horses



Population Sizes in 21 Years*

	Minimum	Average	Maximum
Lowest Trial	9	23	50
10 th Percentile	10	26	52
25 th Percentile	10	26	54
Median Trial	11	28	56
75 th Percentile	12	30	60
90 th Percentile	13	31	62
Highest Trial	16	33	66

*0 to 20+ year-old wild horses

Totals in 21 Years*

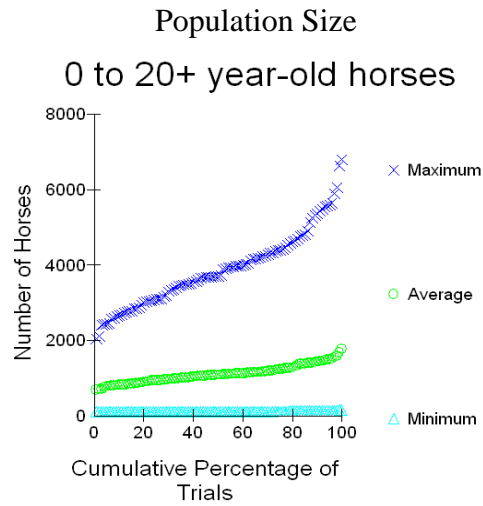
	Gathered	Removed
Lowest Trial	45	33
10 th Percentile	57	46
25 th Percentile	100	79
Median Trial	104	84
75 th Percentile	111	91
90 th Percentile	118	98
Highest Trial	166	138

*0 to 20+ year-old wild horses

Average Growth Rate in 20 Years

	Minimum
Lowest Trial	5.5
10 th Percentile	13.7
25 th Percentile	17.6
Median Trial	20.1
75 th Percentile	22.6
90 th Percentile	24.7
Highest Trial	28.3

Results – Alternative B: No Action



Population Sizes in 21 Years*

	Minimum	Average	Maximum
Lowest Trial	100	691	2046
10 th Percentile	105	820	2680
25 th Percentile	107	938	3108
Median Trial	112	1087	3714
75 th Percentile	116	1235	4412
90 th Percentile	122	1442	5405
Highest Trial	142	1771	6798

*0 to 20+ year-old wild horses

APPENDIX C

Comments and Responses to Comments

Comments were accepted on the *Lahontan Herd Management Area Gather Plan Environmental Assessment*, DOI-BLM-NV-C020-2010-0018-EA, for a 30-day period from August 23, 2010 until September 21, 2010, although comments received in a timely manner after this date were also considered.

Letters to 62 individuals, organizations and agencies (including three Tribes) were mailed on August 20, 2010. Notification of the availability of the EA to 33 other State and federal offices was made through the Nevada State Clearinghouse on August 19, 2010. The CCDO published a news release on August 23, 2010. Articles on the proposed gather were featured in the *Lahontan Valley News*, *This is Reno*, *My News 3**, *My News 4**, *Reno Gazette-Journal** (*web versions) and the *Mineral County Independent*. BLM staff presented information on the horse gather to the Lyon County Advisory Board to Manage Wildlife meeting in Yerington, Nevada on September 13, 2010 and to the Lyon County Animal Control Advisory Board meeting in Silver Springs, Nevada on September 21, 2010. The comment period closed on September 21, 2010. Comments received in a timely manner after this date were also considered. BLM staff also met with staff from the Lahontan State Recreation Area on September 27, 2010 to discuss the proposed gather.

Although not required for an EA by regulation, an agency may respond to *substantive* and *timely* comments. Substantive comments: 1) question, with reasonable basis, the accuracy of information in the EIS or EA; 2) question, with reasonable basis, the adequacy of, methodology for, or assumptions used for the environmental analysis; 3) present new information relevant to the analysis; 4) present reasonable alternatives other than those analyzed in the EIS or EA; and/or 4) cause changes or revisions in one or more of the alternatives. No response is necessary for non-substantive comments (BLM, 2008).

A. Comments by Individuals

A.1 Individual Letters.

Comment letters were received from 26 individuals by email, fax or mail. All comment letters were reviewed, considered and then categorized. Minor non-substantive changes were made to the EA as a result of the individual letters (noted in the response). Distinct topics addressed in comment letters are summarized in the table below:

Table 1 Individual Comments.

No.	Comment	Response
1.	Support moratorium on roundups.	Outside the scope of this EA.
2.	Support horse preserves in the west.	Outside the scope of this EA.
3.	Support fertility control.	Outside the scope of this EA.
4.	Support humane euthanasia and hunting to manage herds.	Outside the scope of this EA.
5.	Public participation in meetings, public observation of roundups and holding facilities...	This EA is in compliance with NEPA which requires a public involvement process. As stated in Section 2.1, there would be opportunities for public observation consistent with BLM IM No. 2010-164 (added as Appendix D). As described in Section 5.0, the public, organizations and agencies were notified of the availability of this document and the opportunity to provide comments.
6.	Inadequate science or research.	The BLM bases its gather plans on the best available science and on decades of wild horse management on the public lands.
7.	Cattle crossing highways are a major hazard.	Outside the scope of the EA.
8.	The practice of long-term facilities fiscally irresponsible, unsustainable and most probably illegal.	Outside the scope of the EA.
9.	Impacts from livestock grazing not discussed in EA.	Outside the scope of the EA. Livestock grazing is evaluated separately through a publically involved NEPA process and impacts associated with grazing have been analyzed. As noted in the EA, there has been no livestock grazing within the HMA since March 2007 due to insufficient forage availability.
10.	The EA failed to analyze potential economic impacts from the gather.	The gather and long-term pasture facilities costs are outside the scope of this EA.
11.	Long-term pastures for wild horses are on privately owned lands and are therefore not open to public observation.	Section 3.0 (A) page 15 has been revised to include the following statement: "The BLM cannot grant or require public access to these pastures. Any decision as to access would be on the part of the landowner."
12.	The number of wild horses in the HMA at the time of the WFRHBA (1971) is inaccurate; local cowboys or ranchers would deplete the herds.	The purpose of the gather is to bring the wild horse population to within the AML set in 1993, which represents the number of horses which can be managed over the long term for a thriving natural ecological balance and avoids deterioration of the range (BLM, 2010).
13.	BLM is deliberately taking the Lahontan wild horse herds down...to have a better	The timing of the RHS is based on District workload priorities and staffing, and is not related to when a gather

	Rangeland Health Standards (RHS)...report in 2016.	occurs or has occurred.
14.	Cattle grazing has been occurring for the past 3 or 4 years despite what BLM says in the EA.	The Bureau of Reclamation has a permittee which uses a portion of lands within the LSRA for cattle grazing. The LSRA is separate and distinct from the LGA, within which the Lahontan HMA is located. As stated in Section 1.3, BLM permitted cattle grazing has not occurred on the LGA (or within the Lahontan HMA) since March of 2007.
15.	The size of the HMA (11,000 acres) should be increased to accommodate more wild horses.	Any consideration to revise the HMA would have to be done through an amendment or revision to the Resource Management Plan (RMP) (BLM, 2010); as such this is outside the scope of this gather EA.
16.	Animals are taken to slaughter houses.	As described in Section 3.0 (A) wild horses cannot be adopted by or sold to persons seeking to take the animals to slaughter houses or for commercial processing plants.

A.2 Form Letters.

There were 6,615 form letters received via email from individuals affiliated with the *In Defense of Animals* advocacy group. While there were minor variations, the content in all the form letters was essentially the same. All individuals who submitted form letters were opposed to the gather. Minor non-substantive changes were made to the EA as a result of the form letters (noted in the response). Distinct topics addressed in these form letters are summarized in the table below:

Table 2 Form Letter Comments.

No.	Comment	Response
1.	"Inappropriate allocation of resources to livestock..."	As stated in Section 1.3, the allocation of 120 AUM's for wild horses and 122 AUM's for livestock was set by the MUD in 1993. The gather would return the wild horse population at, or near, the AML; the gather would not increase grazing in the area.
2.	"Arbitrary and artificially low AML based on assumptions and inadequate data..."	As stated in Section 1.3, the AML is based on habitat suitability and monitoring data to maintain healthy wild horses and the rangelands. Monitoring of forage utilization that was conducted in May 2010 demonstrated that utilization on key plant species is heavy and confirms that there is an overpopulation of wild horses in the HMA and that the excess horses need to be removed so as to bring the population back to AML.
3.	"Fails to address stopping the influx of released ranch horses..."	As stated in Section 1.2, the wild horses in the area likely originated from released ranch stock. It is unknown if this practice continues to occur today, or if this activity only occurred prior to the time of the enactment of the WFRHBA in 1971.
4.	"Insufficient science and knowledge...in choosing particular horses to be removed and others to be returned to the HMA..."	The BLM bases its gather plans on the best available science and on decades of managing wild horses on the public lands.
5.	"Relocation plan not addressed...BLM should immediately implement a new approach to these gathers by working with the various horse sanctuaries to find facilities to accept the Lahontan wild	As described in Section 2.1, gathered and removed wild horses will be available for adoption or moved to long-term pastures. Establishing horse sanctuaries is outside the scope of this EA.

	horses...”	
6.	“Harmful effects...of social disruption...of family bands...omitted in EA...”	As described in Section 3.0 (A) there may be stress during handling and transportation of gathered animals; social displacement and conflicts between horses after gathers may occur; and potential change in the social structure or sex ratio. These impacts are considered to be short-term in nature; gathers over the past two decades in the HMA have not adversely affected the horse population social structure over the long-term.
7.	“Fails to reconsider alternatives... to the helicopter roundup...”	Section 2.1 page 6 has been revised to include the following statement: “Due in part to the size and complexity of the HMA, the use of helicopters is the most efficient and humane method for conducting the gather operation.” As stated in Section 5.0, BLM holds state-wide meetings in compliance with 43 CFR 4740.1(b) annually to solicit comments on the use of helicopters during gathers. Gather activities follow the SOPs outlined in Appendix A.
8.	“Fails to evaluate social, economic and legal impacts...”	Interdisciplinary team members determined that the gather would have no effect on socioeconomics in the area (Lyon County) and therefore the EA did not analyze these issues. Other aspects of social impacts (taxpayer costs for long-term facilities) are outside the scope of this EA.
9.	“EA omitted consideration to...amend the wild horse AML under the agency’s Adaptive Management Policy...”	As stated in Section 1.8, amending the wild horse AML cannot be done through a gather plan; any consideration to revise the AML would have to be done based on monitoring data demonstrating the need for such revision and through an amendment or revision to the Resource Management Plan (RMP) (BLM, 2010); as such this is outside the scope of this gather EA.
10.	“EA omitted consideration to...eliminate the livestock grazing allotment...under 43 CFR 4710.5(a)...”	As stated in Section 1.8 changing the grazing allotment is outside the scope of this EA, and could only be done through an amendment or revision to the RMP (BLM, 2010) and by following the regulatory process at 43 CFR Part 4100 for modifying permitted grazing.
11.	“EA omitted consideration to...designate such areas to be managed principally for wild horse herds under 43 CFR 4710.3-2...”	As stated in Section 1.4, the purpose of the gather is to bring the wild horse population to within AML; changing the use of the area to be managed principally for wild horse herds (to the exclusion of other multiple uses) could only be done through an amendment or revision to the RMP (BLM, 2010).

Two form letters opposed to the gather were received from individuals affiliated with *The Cloud Foundation*. Their comments were similar to the other form letters received and are not addressed further.

A.3 Petition.

One petition was received by fax (although the group affiliation was not identified). The form letters had the signatures of 56 individuals, all of whom were opposed to any “wild horse roundups.” There were no specific comments addressing this EA; the form letters included general statements concerning trauma to horses by helicopters (for response refer to Table 2, No. 7) and use of slaughter houses (for response refer to Table 1, No. 16). There were no substantive

comments and the content of this petition is therefore not addressed further.

B. Comments by Organizations and Agencies

Seven comment letters were received from organizations and agencies. All comment letters received from organizations and agencies were reviewed, considered and then categorized.

B.1 Agency Comments.

Comment letters were received from the Nevada State Lands, Grazing Board District N-3 (GBD), the Nevada Department of Wildlife (NDOW), and the Bureau of Reclamation (Lahontan Area Office). All agencies expressed support for the horse gather. Distinct topics addressed in these agency letters are summarized in the table below:

Table 3 Agency Comments.

No.	Organization	Comment	Response
1.	GBD	The area is poor for wild horses.	Comment noted.
2.	GBD	Wild horses can spread invasive weeds.	Comment noted.
3.	GBD	Support use of fertility treatment.	Outside the scope of this EA.
4.	GBD	Consider elimination of the HMA or combining it with another HMA or with the nearby State managed herd area for social interaction and genetic viability.	Any consideration to revise the HMA would have to be done through an amendment or revision to the RMP (BLM, 2010); as such this is outside the scope of this gather EA.
5.	NDOW	The May 2010 census may be an undercount; gather efficiency 90%; suggest gathering wild horses to the lower AML (7 animals).	Comment noted. The Proposed Action is to remove horses to the upper limit of the AML (10 horses). Section 2.1 has been revised to include the following footnote: “ ¹ Although BLM generally attempts to gather to low limit of AML, because of the upper and lower limit are separated by only a few horses, BLM would gather to the upper limit of AML.”
6.	NDOW	Concerns about damage to vegetation and wildlife habitat even with 10 horses.	Comment noted.
7.	NDOW	Noted that the BLM Handbook (H-4700-1) indicates that 150-200 wild horses is recommended for an acceptable genetic diversity level.	Comment noted. BLM will collect genetic data during this gather and in subsequent gathers that will help inform BLM’s management to ensure acceptable genetic diversity within the herd.
8.	NDOW	Recommends development of a monitoring plan.	Comment noted.

B.2 Organization Comments.

Comment letters were received from the Alliance of Wild Horse Advocates (AOWHA), Animal Welfare Institute (AWI), and the American Wild Horse Preservation Campaign (AWHPC). Some non-substantive changes were made to the EA as a result of the comments made by these

organizations (as noted in the response). Distinct topics addressed in these organization letters are summarized in the table below:

Table 4 Organization Comments.

No.	Organization	Comment	Response
1.	AOWHA	The EA does not fully take into account the resources in the LSRA (water, forage).	As stated in Section 2.1, BLM recognizes that wild horses utilize the LSRA for water and foraging purposes. However, these areas north of the Carson River delta and outside the boundaries of the HMA are privately owned or managed by LSRA and the lands are not managed under the WFRHBA for wild horses.
2.	AOWHA	Removing horses from the Lahontan herd can encourage a population vacuum, causing horses from the adjacent Virginia Range herd [a Nevada state managed herd] to move into the HMA.	BLM recognizes that nothing prevents the movement or intermixing of the herds as there is no continuous fencing around the HMA.
3.	AOWHA	The 1971 census is inaccurate.	The purpose of the gather is to bring the wild horse population to within the AML set in 1993, which represents the number of horses which can be managed for a thriving natural ecological balance in the long term and that avoids deterioration of the range (BLM, 2010).
4.	AOWHA	“The AML would lead to the elimination of the herd...it would have a negative impact on...local ecotourism.”	No information has been presented to the BLM to quantify the economic value to the LSRA or Lyon County due to the presence of the wild horses. BLM met with staff of the LSRA on September 27, 2010 and no information was presented that indicates that viewing of wild horses is a significantly important activity for park visitors.
5.	AWHPC	“The EA omits a discussion of Interior Secretarial Order No. 3270...to incorporate Adaptive Management into agency management programs...land use decisions can be adjusted...”	Although this Order expired in February 2008, 43 CFR 46 section 145 published in October 2008 states in part “Bureaus should use adaptive management, as appropriate...” BLM recognizes that adaptive management is a tool, but as described in Section 1.8, changes to previous decisions (AML, MUD, HMA) cannot occur without an amendment or revision to the RMP (BLM, 2010).
6.	AWI	“The Win Equus Population Model...was from wild horse data from the Garfield HMA.”	Appendix B, page 50 under <u>Objectives of Population Modeling</u> was revised to include the following: “...located in another portion of the CCDO. This data was used as it is the best recruitment and mortality data available.”
7.	AWI	“Under the No Action Alternative...incorrectly states that	Section 3.0 (G) on page 25 under the No Action Alternative has been revised to

		'noxious weeds being spread by gather operations would occur.'"	state: "Noxious weeds being spread by gather operations would not occur."
8.	AWI	"The EA fails to...summarize relevant sections of the 2003 update to the Herd Management Area/Capture Plan..."	The following statement was added to Section 1.2 on page 2: "No change in the AML was made as a result of the plan update. These plans provided the management direction for managing the HMA between 1991 and 2010." The HMA/CP has been added to Section 6.0, References.
9.	AWI	Content on pages 15 and 16 misplaced.	The content on page 15 of the EA starting with "Indirect individual impacts..." through page 16 "...should not be returned to the range." have been moved to pages 12 and 13. One duplicate paragraph on page 12 of the EA starting with "Indirect impacts can occur..." has been deleted.

APPENDIX D

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240
<http://www.blm.gov>

July 22, 2010

In Reply Refer To:
4710 (260) P

EMS TRNASMISSION 07/23/2010
Instruction Memorandum No. 2010-164
Expires: 09/30/2011

To: All Field Officials (except Alaska)
From: Assistant Director, Renewable Resources and Planning
Subject: Public Observation of Wild Horse and Burro Gathers

Program Area: Wild Horse and Burro Program

Purpose: The purpose of this Instruction Memorandum (IM) is to establish policy for public observation of wild horse and burro (WH&B) gathers.

Policy/Action: The Bureau of Land Management's (BLM's) policy is to accommodate public requests to observe a gather primarily through advance appointment, on days and at times scheduled by the authorized officer. Planning for one public observation day per week is suggested.

Specific viewing opportunities will be based on the availability of staff with the necessary expertise to safely and effectively host visitors, as well as other gather-specific considerations (e.g., weather, terrain, road access, landownership). The public should be advised that observation days are tentative and may change due to unforeseen circumstances (e.g., weather, wildfire, trap relocation, equipment repair, etc.). To ensure safety, the number of people allowed per observation day will be determined by the District Manager (DM) and/or Field Office Manager (FM) in consultation with the Contracting Officer's Representative/WH&B Specialist (COR) for the gather.

The DM/FM has the primary responsibility for effectively planning and managing public observation of the gather operation. Advance planning will:

- Ensure that the public have opportunities to safely observe wild horse gathers;
- Minimize the potential for disruption of the gather's execution;
- Maximize the safety of the animals, visitors, and the BLM and contractor personnel;
- Provide for successful management of visitors; and
- Ensure preparedness in the event of unanticipated situations.

The authorized officer will consider the following when planning for public observation of WH&B gather

operations. Also see Attachment 1 (Best Practices When Planning for Public Observation at Gathers).

A. Safety Requirements

During WH&B gathers, the safety of the animals, the BLM and contractor personnel, and the public is of paramount importance. Because of the inherent risk involved in working with WH&B, the public will not be allowed inside corrals or pens or be in direct contact with the animals. Viewing opportunities during the gather operation must always be maintained at a safe distance (e.g., when animals are being herded into or worked at the trap or temporary holding facility, including sorting, loading) to assure the safety of the animals, the BLM and contractor personnel, and the public.

Unless an emergency situation exists, the BLM's policy prohibits the transportation of members of the public in Government or Contractor-owned or leased vehicles or equipment. Therefore, observers are responsible for providing their own transportation to and from the gather site and assume all liability for such transportation.

The helicopter/aircraft is the private property of the gather contractor. Due to liability and safety concerns, Bureau policy prohibits observers from riding in or mounting cameras onto the aircraft. Should observers create unsafe flying and gathering conditions, for example, by hiring an aircraft to film or view a gather, the COR, in consultation with the gather contractor, will immediately cease gather operations.

The COR has the authority to stop the gather operation when the public engage in behavior that has the potential to result in harm or injury to the animals, employees, or other members of the public.

B. Planning for Public Observation at WH&B Gathers

During advance planning for public observation at WH&B gathers, the authorized officer should consult with the State External Affairs Chief or appropriate Public Affairs office. An internal communications plan will be developed for every gather (Attachment 2). It may also be helpful to prepare answers to frequently asked questions (Attachment 3).

C. Law Enforcement Plan

A separate Law Enforcement Plan should be developed if the need for law enforcement support is anticipated. The Law Enforcement Plan must be approved in advance by the Special Agent-In-Charge (SAC) or the State Staff Ranger of the State in which the gather is occurring.

D. Temporary Closure to Public Access

Under the authority of section 303(a) of the Federal Land Management and Policy Act (43 U.S.C. 1733(a)), 43 CFR 8360.0-7, and 43 CFR 8364.1, the authorized officer may temporarily close public lands within all or a portion of the proposed gather area to public access when necessary to protect the health and safety of the animals, the public, contractors and employees. Completion of a site-specific environmental analysis of the environmental impacts associated with the proposed closure and publication of a Federal Register Notice is required.

E. Gather Contract Pre-Work Conference

- Talk to the contractor about how many members of the public are expected and when. Discuss, and reach mutual agreement, about where best to position the public at the individual trap-sites to allow

the gather to be observed, while accomplishing the gather objectives and assuring the humane treatment of the animals and the safety of the BLM and contractor personnel, and public.

- No deviation from the selected viewing location(s) should be made, unless the gather operation is being adversely impacted. The COR will consult with the gather contractor prior to making any changes in the selected viewing locations.
- The BLM's policy prohibits it from ferrying observers in the helicopter or any other mode of conveyance unless an emergency situation exists. Review this policy with the contractor during the pre-work conference.

F. Radio Communication

- Assure there is effective radio communication between law enforcement personnel, gather COR or project inspectors (PIs), and other BLM staff.
- Identify the radio frequencies to be used.
- Communication with the gather contractor is through the BLM COR or PI, and from the gather contractor to the helicopter pilot. Direct communication between BLM personnel (other than the COR) and the helicopter pilot is not permitted, unless agreed upon by the BLM authorized officer and the contractor in advance, or the pilot is requesting information from the COR.

G. Pre- and Post-Action Gather Briefings

- Pre-briefings conducted by knowledgeable and experienced BLM staff can be helpful to the public.
- The pre-gather briefing is an opportunity to explain what individuals will see, why the BLM is conducting the gather, how the animals will be handled, etc.
- Post-action briefings may also be helpful in interpreting and explaining what individuals saw, what happened, why certain actions were taken, etc.

H. Summary of Individual Roles and Responsibilities

1. District and/or Field Office Managers

DMs and/or FM's are responsible for keeping the State Director and State WH&B Lead fully informed about the gather operation. Included is working with State/local public affairs staff to prepare early alerts if needed. An additional responsibility is determining if a law enforcement presence is needed.

2. Public Affairs Staff

The local district/field office public affairs staff is responsible for working with the COR, DM/FM, other appropriate staff, the State WH&B Program Lead, and the State Office of Communications to implement the communications strategy regarding the gather.

3. Law Enforcement

Develop and execute the law enforcement plan in consultation with District/Field Office Managers, the COR/PI, and the State's Special Agent-In-Charge or State Staff Ranger.

4. Contracting Officer's Representative (COR)/Project Inspectors (PIs)

The COR and the PI's primary responsibility is to administer the contract and manage the gather. A key element of this responsibility is to assure the safe and humane handling of WH&B. The COR is also responsible for working closely with the DM/FM and Public Affairs Staff to develop the communication plan, and for maintaining a line of communication with State, District, and Field Office managers, staff and specialists on the progress of, and any issues related to, the gather operation.

Timeframe: This instruction memorandum is effective immediately.

Budget Impact: Higher labor costs will be incurred while accommodating increased interest from the public to attend gather events. The budget impacts of unanticipated situations which can occur during WH&B gathers include substantial unplanned overtime and per diem expense. Through advance planning, necessary support staff can be identified (e.g., law enforcement, public affairs, or other BLM staff) and the cost-effectiveness of various options for providing staff support can be evaluated. In situations where public interest in a gather operation is greater than anticipated, the affected state should coordinate with the national program office and headquarters for assistance with personnel and funding.

Background: Heightened interest from the public to observe WH&B gathers has occurred. Advance planning for public observation of gather operations can minimize the potential for unanticipated situations to occur during WH&B gathers and assure the safety of the animals, the BLM and contractor personnel, and the public.

Manual/Handbook Sections Affected: No change or affect to the BLM manuals or handbooks is required.

Coordination: This IM was coordinated among WO-200 and WO-260 staff, State WH&B Program Leads, field WH&B Specialists, public affairs, and law enforcement staff in the field.

Contact: Questions concerning this policy should be directed to Susie Stokke in the Washington Office at (202) 912-7262 or Lili Thomas in the National Program Office at (775) 861-6457.

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